

**THE INCOME TAX CONSEQUENCES OF THE IN-HOUSE
DEVELOPMENT OF SOFTWARE**

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ABSTRACT

The objective of this thesis was to explore the nature of expenditure incurred on the internal development of software and its treatment in terms of the accounting and taxation frameworks to which it is subject. In fulfilling the primary objective the thesis had a number of subsidiary considerations. These included, firstly, a brief analysis of the approach of the software industry in South Africa to the taxation treatment of this type of software. The second consideration was a discussion and analysis of the taxation framework which differentiates between capital and revenue and the extent to which the receipts produced by internally developed software may be informative of the nature of the expenditure. The third was an analysis of the deductibility of expenditure incurred in the production of software with the fourth analysing the tests employed in the determination of whether expenditure is capital or revenue in nature. The fifth objective was to briefly analyse the accounting standards which find application in the determination of whether or not the software created can be considered a capital asset. The final subsidiary objective of the thesis was an analysis of the taxation framework applicable to software in respect of research and development incentives, as well as the position in the United States of America. Throughout the thesis the most apparent commonality is that there exists a significant level of uncertainty as to the taxation treatment of software both in South Africa and in America. The research concludes by stating that such uncertainty is prejudicial to the interests of research and development in relation to software.

KEYWORDS: Software, Research and Development Incentive, Income Tax Act, South Africa, Internally Developed Software.

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CHAPTER ONE: INTRODUCTION

1.1 CONTEXT OF THE RESEARCH

A computer program is defined in section 1 of the Copyright Act 98 of 1978 as a set of instructions fixed or stored in any manner which, when used directly or indirectly in a computer, directs its operation to bring about a result. The assortment of tasks that a computer is capable of processing is wide and varied, but a computer is only as effective as the instructions it is given.¹ This has led to the advent of niche software opportunities, collectively known as application software, which is developed to perform specific information processing activities and provide functionality for computer users.² As companies' needs vary so do the types of software which they require to run their businesses. The software which companies utilise to fulfill these needs may be sourced in a number of different ways, including purchasing off-the-shelf, or canned, software or developing the software themselves, known as proprietary applications, or in-house software.³ Many companies choose the latter and, in doing so, they incur certain costs, such as the chargeable time spent on the development by employees, and other resources such as the development tools, in the form of software and hardware, required to develop software. It has been found that in the banking and finance industries the amount spent on such development can be as high as 12 per cent of the annual operating budget.⁴

The term, "which they require to run their businesses", may have more than one interpretation. Where the nature of the trade is the granting of licenses to use the product, the software forms part of the capital structure of the business, used to generate income. The software might be developed exclusively to be sold, therefore constituting trading stock. A further interpretation might be that the business requires the internal-use software to secure the company's internal efficiencies, resulting in, at

¹ Rainer, R.K., Turban, E., Potter, R.E. 2007. **Intoduction to Information Systems: Supporting and Transforming Business**. USA: John Wiley & Sons.

² Rainer, R.K., Turban, E., Potter, R.E. 2007. **Intoduction to Information Systems: Supporting and Transforming Business**. USA: John Wiley & Sons.

³ Rainer, R.K., Turban, E., Potter, R.E. 2007. **Intoduction to Information Systems: Supporting and Transforming Business**. USA: John Wiley & Sons.

⁴ Deloitte. 2010. **Lifting the veil on IT spending: A different view saves considerable costs**. [Online]. Available: <http://deloitteusa.files.wordpress.com/2010/07/lifting-the-veil-on-it-spend1.pdf>.

[Accessed 12 May 2012]

the very least, a perceived increase in the value of the business where efficiencies lead to decreased costs or a competitive advantage.

The Income Tax Act 58 of 1962 (hereinafter referred to as ‘the Act’) governs the basis upon which a South African resident is taxed. The foundation of such basis is the definition of ‘gross income’ contained in section 1 of the Act, which provides that resident taxpayers are liable to taxation on the total amount, in cash or otherwise, received by or accrued to or in favour of such resident during such year or period of assessment, excluding receipts or accruals of a capital nature. The actual amount upon which the taxpayer is taxed, however, is referred to as the taxpayer’s “taxable income”, being the total income, minus those amounts which the Act allows to be deducted or exempted. Section 11(a), read with section 23(g) of the Act, govern most of the allowable deductions and are known as the *general deduction formula*. Section 11(a) provides for the deduction of expenditure and losses actually incurred in the production of income, provided that the expenditure is not of a capital nature, therefore imposing certain limitations upon what may be deducted in terms of the formula. Section 23(g) disallows any deduction of expenditure, or part thereof, which was not incurred for the purposes of trade. There has been acceptance of the principle of apportionment in certain aspects of the law of taxation and, accordingly, the appropriateness of the apportionment of expenditure that is partly for capital and partly for non-capital purposes in these circumstances is worthy of further exploration and finds its roots and development in case law.⁵ The reason for the possible exploration of this point stems from the fact that software may be developed with a dual purpose, *vis*, for sale as well as being licensed, creating an asset which has features that are both revenue and capital in nature. Section 22, which relates to trading stock, may have a bearing on the subject in that in certain circumstances software may be considered to be trading stock, but a discussion of the tax provisions relating to trading stock falls outside the scope of this thesis. Section 22 is excluded from the thesis because the focus is primarily on software which is developed for in-house use. Therefore, while software may also be developed with a primary aim of selling that software, in which case that software would possess characteristics of trading stock, that type of software is not the focus of this thesis.

⁵ *Secretary for Inland Revenue v Guardian Assurance Holdings (SA) Ltd* 1976 4 SA 522 (A).

The legislature has attempted to remedy the potential non-deductibility of capital expenditure incurred in respect of the development of intellectual capital by the enactment, and subsequent amendment, of section 11D of the Act, which allows for a deduction in respect of technological research and development costs even where they may be of a capital nature, the primary purpose of the section being to encourage investment in research and development within the Republic. For the purposes of this thesis the relevant portions of section 11D, as at the time of writing the thesis, stated⁶:

“11D. Deductions in respect of scientific or technological research and development.—

(1) For the purposes of this section “research and development” means—

(a) systematic investigative or systematic experimental activities of which the result is uncertain for the purpose of—

(i) discovering non-obvious scientific or technological knowledge; or

(ii) creating—

(aa) an invention as defined in section 2 of the Patents Act, 1978 (Act No. 57 of 1978);

(bb) a design as defined in section 1 of the Designs Act, 1993 (Act No. 195 of 1993), that qualifies for registration under section 14 of that Act;

(cc) a computer program as defined in section 1 of the Copyright Act, 1978 (Act No. 98 of 1978); or

(dd) knowledge essential to the use of such invention, design or computer program; or

(b) developing or significantly improving any invention, design, computer program or knowledge contemplated in paragraph (a) if that development or improvement relates to any—

(i) new or improved function; (ii) improvement of performance;

(iii) improvement of reliability; or

⁶ It should be noted that the section has undergone numerous revisions and is likely to undergo many more as a result of the deficiencies which will become apparent in this research.

(iv) improvement of quality,

of that invention, design, computer program or knowledge.

(2) For the purposes of determining the taxable income of a taxpayer in respect of any year of assessment there shall be allowed as a deduction from the income of that taxpayer an amount equal to so much of any expenditure actually incurred by that taxpayer directly and solely in respect of research and development undertaken in the Republic if that expenditure is incurred—

(a)

in the production of income; and

(b)

in the carrying on of any trade.

(3) In addition to the deduction allowable in terms of subsection (2), a taxpayer that is a company may deduct an amount equal to 50 per cent of the expenditure contemplated in subsection (2) if—

(a)

that research and development is approved by the Minister of Science and Technology in terms of subsection (9);

(b)

that expenditure is incurred in respect of research and development carried on by that taxpayer; and

(c)

that expenditure is incurred on or after the date of receipt of the application by the Department of Science and Technology for approval of that research and development in terms of subsection (9).

(4) In addition to the deduction allowable in terms of subsection (2), where any amount of expenditure is incurred by a taxpayer to fund expenditure of another person carrying on research and development on behalf of that taxpayer, the taxpayer may deduct an amount equal to 50 per cent of the expenditure contemplated in subsection (2)—

(a)

if that research and development is approved by the Minister of Science and Technology in terms of subsection (9);

(b)

if that expenditure is incurred in respect of research and development carried on by that taxpayer;

(c)

to the extent that the other person carrying on the research and development is—

(i)

(aa)

an institution, board or body that is exempt from normal tax under section 10 (1) (cA); or

(bb)
the Council for Scientific and Industrial Research; or

(ii)
a company forming part of the same group of companies, as defined in section 41, if the company that carries on the research and development does not claim a deduction under subsection (3); and

(d)
if that expenditure is incurred on or after the date of receipt of the application by the Department of Science and Technology for approval of that research and development in terms of subsection (9). ...

...

(8) No deduction shall be allowed under this section for expenditure incurred in respect of—

...

(d)
development of internal business processes unless those internal business processes are mainly intended for sale or for granting the use or right of use or the grant of permission to use thereof;

...

(f)
the creation or enhancement of trademarks or goodwill;

...

(9) The Minister of Science and Technology must approve any research and development being carried on or funded for the purposes of subsections (3) and (4) having regard to—

(a)
the innovative nature of the research and development;

(b)
the extent to which carrying on that research and development requires specialised skills; and

(c)
such other criteria as the Minister of Science and Technology in consultation with the Minister of Finance may prescribe by regulation.

(b) The Minister of Science and Technology or the Minister of Finance may appoint alternative persons to the committee if a person appointed in terms

of paragraph (a) is not available to perform any function as a member of the committee.”

A distinction must be drawn between software which is sold to produce income, and software which is responsible for creating internal efficiencies in the production of income in that the two may have very different taxation implications, as section 11D(8)(d) disallows the deduction of the costs incurred in the development of software for internal use in the context of that section.

Section 11D may in two respects present certain limitations in relation to the deductibility, for tax purposes, of the costs of software development from the perspective of a taxpayer seeking to utilise the section for advantage of developing its internal business processes. The first problem is the requirement that the expenditure must be incurred directly and solely in respect of research and development as defined in section 11D(1) and that it must be incurred by the taxpayer in the production of income in the carrying on of a trade, in terms of section 11D(2).⁷ Section 11D(8) expressly excludes expenditure incurred to enhance internal business processes, unless it is conducted for external exploitation for sale or license to customers.

There is no definition of capital in the Act. Accordingly, the differentiation between revenue and capital is found in the common law excurses.⁸ The analogy often used is that revenue is the fruit of the tree, and the tree is the capital.⁹

The development of software for internal use may also contribute to the value of the business, in terms of an increased capital value of such business at the ultimate sale of the business, analogous to goodwill. This contribution may stem either from an increased asset-base, in the form of intellectual property from which the company may draw in respect of further product development, or in the form of increased efficiencies, brought about by the company’s knowledge gained in the development, over time, of software. Businesses, in their accounting recognition of this benefit, are required to apply the principles enunciated in the standards set out by the Generally Accepted Accounting Principles (“GAAP”), subsequently subsumed by the provisions

⁷ Stiglingh, M., Koekemoer, A.D., van Schalkwyk, L., Wilcocks, J.S., de Swardt, R.D. 2011. **Silke, South African Income Tax 2012**. Durban: LexisNexis.

⁸ *Commissioner of Taxes v Booyens Estates Ltd* 1918 AD 576.

⁹ *Eisner v Macomber*, United States Supreme Court 1919 252 US 189, *Commissioner for Inland Revenue v Visser* 1937 TPD 77, 8 SATC 271.

of International Financial Reporting Standards (“IFRS”) and the International Accounting Standards (“IAS”). In doing so there exists the possibility that there may be a discrepancy between the accounting treatment of the software and its taxation treatment in that it may be recognised differently for accounting purposes than for taxation purposes. Accordingly, the accounting framework dealing with intangible assets will need to be dealt with in order to explore the relationship between the treatment of software within that framework and the treatment of software from a taxation perspective.

In order to deal with this issue for the purposes of this research it is imperative that a meaningful engagement with the relevant industry stakeholders is undertaken in order to ensure that what is dealt with in the research is not merely of an academic interest but can be used in industry in respect of a synthesis of the challenges surrounding the taxation treatment of software. Accordingly such input has been obtained and forms the basis of chapter two of the thesis.

The first problematic element is that section 11D(3), read with section 11D(9), requires that the proposed deduction, where an additional deduction of 50 per cent is being claimed over and above the 100 per cent deduction, must be reviewed and approved by a committee of five members appointed by the Minister of Science and Technology, making the process cumbersome and onerous for the taxpayer and contrary to the intention of the legislature.¹⁰ The pre-approval conditions of section 11D may be onerous in two respects. The first is that the delay in being granted such approval may hinder the pace of innovation of new technologies. The second is that the firm invoking the provisions may be required to disclose the innovative nature of the development, the extent to which it requires specialised skills and any other criteria which the Minister may prescribe by regulation in terms of section 11D. In the absence of strict adherence to confidentiality requirements within the Department of Science and Technology such disclosure may nullify the innovative nature of the development in terms of the Patents Act 58 of 1978.

This concern arises because, although South African law does not provide for the patentability of computer programs, such patentability has been recognised by other

¹⁰ Suliman, Y. 2011. **Overhaul of R&D allowances**. [On line] Available: <http://www.kpmg.com/za/en/issuesandinsights/articlespublications/tax-and-legal-publications/pages/overhaul-of-r-and-d-allowances.aspx>. [Accessed 7 August 2012]

leading jurisdictions where the software sought to be patented provides significantly better computing or improves the state of the art.¹¹ In fact, the basis on which the European authority previously dismissed such patentability was the lack of novelty, a requirement for the registration of a patent.¹² It follows, therefore, that the requirement of novelty, as set out in section 25(5) the Patents Act 58 of 1978 should be protected by the secrecy which traditionally surrounds research and development procedures in order to make the South African research and development incentive climate attractive to international information technology investors and should not be compromised by onerous disclosure requirements in terms of tax legislation. The application of the Copyright Act to computer programs was facilitated by the insertion of section 11B and other amendments to the Copyright Act in terms of Copyright Amendment Act 125 of 1992. Similar to the Patents Act, section 2 of the Copyright Act 98 of 1978 requires that the work for which copyright is granted be original.

Originality has been formulated in South African law as containing a number of criteria including the condition that there should not have been any prior disclosure of the inventive step.¹³ The requirement in terms of section 11D that the nature of the research be disclosed must therefore be analysed critically in terms of the trade-off between the taxation benefit, in being granted a deduction in terms of section 11D, and the risk, in the form of disclosing the novelty or originality of the software, thereby losing the novelty required by Intellectual Property law in order for ideas to be afforded protection, and the effect that this will have on the desirability of choosing South Africa as a development hub. It is not the province of this thesis to explore the issues relating to patentability and copyright considerations relating to the protection of software and the above is dealt with briefly purely for the purpose of putting the issues which are dealt with in this thesis into perspective.

For the purpose of completeness, however, it must be noted that in Interpretation Note 50, SARS dealt with the requirements of Research and Development incentive and the relationship between the qualifying activities and section 11D wherein it indicated that it was insufficient that the activity be generally directed towards advancing

¹¹ *Symbian Limited v Comptroller General of Patents* 2008 EWHC 518.

¹² *Fujitsu Limited* 1997 EWCA 1174.

¹³ *Klep Valves v Saunders Valves* 1987 2 SA 1 (A).

scientific or technological knowledge but that it should be directed towards one of a closed list of Research and Development purposes.¹⁴ In dealing with this closed list the Interpretation Note stipulated that in order to qualify the expenditure must be directed at one of the types of expenditure that follows. The first was the discovery of novel, practical and non-obvious information wherein it stated that a discovery is something that has already been in existence and brought to the discoverer's awareness, usually the ascertaining of an existing fact of nature, in contrast with an invention, which is the product of human ingenuity, with the former being pre-existing and the latter being created.¹⁵

The second type of qualifying expenditure is in the development of an invention as defined in section 2 of the Patents Act 57 of 1978. In doing so SARS confirmed that the invention must be new, involve an inventive step and be capable of being used or applied in trade or industry or agriculture and that the invention must be protectable by way of a patent, *vis*, that, while a patent application need not be made, the requirements of the Act must be met and that the word "new" implies that the invention has not been made available to the public anywhere in the world by the means included in section 25(6) of the Patents Act.¹⁶ In relation to patents, or patentable inventions, the Act, at section 25(1) and the Interpretation Note require that the invention must be inventive and that the analysis of this is a subjective enquiry.¹⁷ The Interpretation Note also recognises the exclusions contained in the Act at section 25(2), the more relevant of these being a computer program which is expressly included by section 11D(1)(b)(iii) and will be dealt with in this thesis.¹⁸

The third type which is recognised by SARS in Interpretation Note 50 is a design as defined in section 1 of the Designs Act 195 of 1993.¹⁹ The Interpretation Note indicates that, generally, only functional designs which are new and not commonplace

¹⁴ South African Revenue Services, **Interpretation Note 50**, 28 August 2009.

¹⁵ South African Revenue Services, **Interpretation Note 50**, 28 August 2009, at page 6.

¹⁶ South African Revenue Services, **Interpretation Note 50**, 28 August 2009 at pages 6-7.

¹⁷ South African Revenue Services, **Interpretation Note 50**, 28 August 2009 at page 7.

¹⁸ South African Revenue Services, **Interpretation Note 50**, 28 August 2009 at page 7.

¹⁹ South African Revenue Services, **Interpretation Note 50**, 28 August 2009 at page 7.

in the art in question, and therefore protectable in terms of section 14 of the Designs Act, will qualify under the provisions of section 11D.²⁰

The fourth type of expenditure pertains to computer programs as defined in the Copyright Act. The Interpretation Note requires that, for the cost of developing a program to be deductible in terms of the section, it must meet the definition contained in the Copyright Act, be of a scientific or technological nature, be intended to be used by the taxpayer in the production of income or be devised, developed or created by the taxpayer for the purposes of deriving an income, and not be excluded under the then section 11D(5).²¹ Section 11D(5) was summarised in the Interpretation Note as excluding expenditure which related to exploration or prospecting, management or internal business processes, trademarks, social sciences or humanities or market research, sales or expenditure incurred in marketing promotion.²² The exclusion of the deduction for expenditure relating to internal business processes is the most problematic in relation to software in that it fails to recognize that certain expenditure incurred relating to internal business processes may, in fact, give rise to software which is similar in character to other assets usually created pursuant to research and development expenditure. Accordingly, the Interpretation Note highlighted that expenditure relating to research into developing software for management and internal business processes would therefore not be eligible for deduction, regardless of whether or not it was developed for use in-house or for the purposes of sale to end users and that the costs incurred in the development of software for sale or for use under license would qualify insofar as the software was not for internal business processes and all the other requirements were met.²³ Essentially, therefore, the Interpretation Note reaffirms the difficulties which software that is developed for use in-house may face arising out of the exclusion contained initially in section 11D(5) and now section 11D(8)(d).

The second problem relating to the application of section 11D by companies is that it also creates a risk of having the deduction disallowed in terms of the pre-approval mechanisms provided by the section, in that the declaration required when seeking a

²⁰ South African Revenue Services, **Interpretation Note 50**, 28 August 2009 at page 7.

²¹ South African Revenue Services, **Interpretation Note 50**, 28 August 2009 at page 9.

²² South African Revenue Services, **Interpretation Note 50**, 28 August 2009 at page 8.

²³ South African Revenue Services, **Interpretation Note 50**, 28 August 2009 at page 9.

section 11D deduction will necessarily require the taxpayer to disclose whether or not the proposed software will be capital in nature. If the taxpayer declares at the outset that the research in respect of which the deduction is sought to be made will result in a capital asset, the taxpayer runs the risk of forfeiting the deduction in terms of section 11(a). Therefore, should the deduction in terms of section 11D not be approved by the committee, and should the taxpayer already have declared it to be capital, he or she is bound by such declaration and will not be able to deduct the expenditure in terms of section 11(a).

Therefore, while section 11D provides for the deduction of capital expenditure, a firm may be required to decide at the outset whether it will utilise section 11(a) or whether it will attempt to gain the deduction in terms of section 11D and possibly the additional 50 per cent. The reason for this is that, although, under normal circumstances, where an application in terms of section 11D(3), for a 150 per cent deduction, is declined, section 11D(2), allowing a 100 per cent deduction, would still be available, but in certain circumstances, such applications may be caught by the exclusionary provisions of section 11D(8) in relation to software developed for internal use, precluding the firm from claiming either deduction. In having attempted to utilise sections 11D(2) and 11D(3) the firm may have declared the expenditure to be capital in nature. It would then not be open to that firm to recant such declaration and attempt to utilise the provisions of section 11(a) in that the requirements of section 11D(8) essentially trap the taxpayer into declaring the expenditure to be capital in nature.

There are two questions which arise in the context of an evaluation of the section. The first is whether or not the Income Tax Act appropriately deals with the deductions in respect of internally-developed software in light of the uncertainty as to whether or not internally developed software is capital or revenue in nature and, secondly, whether or not such software constitutes a capital asset? Moore's law²⁴, which dictates that technological capacity doubles every two years, coupled with the continuously changing algorithms and international competition associated with the development of software means that when one takes into account the time periods associated with legislating changes, any legal framework created with software in

²⁴ Merriam Webster Dictionary. Available On-line: <http://www.merriam-webster.com/dictionary/moore's%20law>. Accessed 10 June 2014.

mind will probably only be useful for a limited number of development lifecycles after its promulgation.

There exists no South African precedent dealing with the analysis which forms the subject of this thesis. Accordingly, the conclusions reached in this thesis may be of persuasive weight in the assessment of an approach to take in dealing with the deduction of costs incurred in the production of software and will therefore make a contribution to the body of knowledge in the field.

1.2 GOALS OF THE RESEARCH

The primary goal of the research is to explore the nature of software which is developed internally and its treatment in terms of the accounting and taxation framework.

In order to do this there are a number of subsidiary goals. The first is to understand the software industry's approach to the taxation treatment of software and their practical implementation of such treatment. The second is to identify and explore the taxation framework which differentiates between capital and revenue in relation to receipts produced by software within this framework. The third is to analyse the deductibility of expenditure incurred in the production of software, having regard to the general deduction formula contained in the Income Tax Act. The fourth is to examine the tests employed in the determination of whether expenditure is capital or revenue in nature, with a specific emphasis on the enduring benefit test. The fifth goal is to explore the accounting treatment of intangible assets and to compare software to such assets and to determine whether an analogy can be drawn between the value created by internally developed software and goodwill. The final goal of the thesis is to explore the local and American taxation frameworks relating specifically to the development of software in order to gain a perspective of the challenges faced regarding the deduction of expenditure incurred in the production of software.

1.3 METHODS, PROCEDURES AND TECHNIQUES

An interpretive research approach will be adopted for the present research as it seeks to understand and describe the research problem.²⁵ The research methodology to be

²⁵ Babbie, E. and Mouton, J. 2009. **The practice of social research**. Cape Town: Oxford University Press South Africa.

applied can be described as *doctrinal* research methodology. This methodology provides a systematic exposition of the legislative rules governing the deductibility of the expenses incurred in the creation of software in terms of the general deduction formula and section 11D of the Act, analyses the relationships between the rules, explains areas of difficulty and is based primarily on documentary data.²⁶

Where industry input is sought in order to obtain further information on practical difficulties in the application of section 11D, it is obtained through correspondence and interviews and is used with the permission of those cited. Interviews were conducted with various stakeholders within the industry whereby their opinions were sought in respect of the nature of the research problem and the manner in which they manage the relationship between the expenditure incurred in the production of software and the taxation treatment of such expenditure. The interviewees were selected on the basis of their position in the industry and their expertise in relation to the taxation and accounting treatment of software which is developed. As the primary purpose of the interviews is simply to gauge an industry perspective the selection process was not a rigid one and was based primarily on those interviewees who responded with an interest in contributing an opinion.

The documentary data used for the research consists of legislation, in the form of the Income Tax Act 58 of 1962 as amended, the Copyright Act 98 of 1978 and the Patents Act 57 of 1978; relevant case law; the relevant parts of Generally Accepted Accounting Practice (now IFRS) and the International Accounting Standards which govern intangible assets, specifically in relation to software; South African Revenue Service Interpretation Notes; articles in accredited journals and textbooks; international Judicial precedent; international legislation and other writings.

The research is conducted in the form of an extended argument, supported by documentary evidence. The validity and reliability of the research and the conclusions is ensured by adhering to the rules of legal interpretation, as established by common law, placing greater evidential weight on legislation, case law which creates precedent or which is of persuasive value and the writings of acknowledged experts in the field,

²⁶ McKerchar, M. 2008. "Philosophical paradigms, inquiry strategies and knowledge claims: applying the principles of research design and conduct to taxation." **E-Journal of Tax Research**. [On line] Available: <http://www.austlii.edu.au/au/journals/eJTR/2008/1.html>. [Accessed 1 August 2012]

discussing opposing viewpoints and reaching conclusions based on a preponderance of credible evidence and the rigour of the arguments.

The thesis requires an analysis of capital versus revenue in the context of deductions and the relevant legislative provisions in relation to the nature of software and the deductibility of expenditure incurred in the development thereof. As there is no South African jurisprudence and comment in respect of this aspect of the law the analysis is confined primarily to that enunciated in the lay press. It is important to take into consideration international jurisprudence in respect of the treatment of software from a taxation perspective. In doing so, a comparative position can be formulated in relation to other jurisdictions. The position in the United States of America in the early 1980s is considered as that position is analogous to the stage of development that South Africa finds itself in at this point in time. In respect of the comparison to the United States of America, literature pertaining to the position in that country in the 1980s is utilised to highlight the challenges that arose in that country when it was at the same jurisprudential stage of development in respect of recognising software as South Africa finds itself currently. This approach in itself highlights the deficiencies within the South African system as a result of the delay in recognising the need for adequate recognition of the costs involved in the production of software in the sphere of taxation.

There is a brief analysis of software and the extent to which it is either considered a revenue-generating asset or a commodity in which the business trades. At the heart of this stage is an analysis of capital expenditure as opposed to operating costs.²⁷ In so far as the objective evaluation of software against the general principles of section 11(a) is concerned, a number of tests have been developed in order to ascertain whether or not the deduction of the cost of an asset or the cost of developing an asset should be disallowed as being of a capital nature, including the “once-and-for-all” test and the *enduring benefit* test.²⁸ The results of such analyses are then contrasted and a conclusion reached as to the nature of software.²⁹ Once the application of the various tests has established a foundation the effect of such formulation must be explored in

²⁷ *Secretary for Inland Revenue v Cadac Engineering Works (Pty) Ltd* 1965 2 SA 551 (A).

²⁸ *Vallambrosa Rubber Co Ltd v Farmer* 1910 SC 519, *British Insulated & Helsby Cables v Atherton* 1926 AC 205.

²⁹ *New State Areas Ltd v Commissioner for Inland Revenue* 1946 AD 610, *Commissioner for Inland Revenue v African Oxygen Ltd* 1963 1 SA 681.

the context of the taxation effect which such classification has on costs incurred in the development of the software.

This research attempts to achieve a definitive approach in respect of the treatment of the costs of software development from a deduction perspective and to determine whether or not the in-house production of software creates a capital asset and therefore should not be allowed as a deduction in the production of income.

1.4 OVERVIEW OF THE THESIS

Chapter two of the thesis establishes the point of departure using information from interviews held with various industry stakeholders in order to gauge the approach to software within the business environment. The chapter details the results of these interviews and highlights the challenges faced by a number of firms in the industry. It is these interviews that provide the stimulus for the further exploration of the true nature of software in the sphere of taxation and the treatment thereof.

Chapters three and four begin with an analysis of the difference between capital and revenue in respect of both receipts and expenditure. The distinction between the two, in itself, presents certain difficulties in respect of the various tests in determining whether or not expenditure is of a capital or revenue nature. There are a number of tests that have been formulated by the courts. The most pertinent of these is referred to as the 'enduring benefit' test. This test forms the basis of chapter four.

The earlier chapters of the thesis will raise a number of queries in relation to the correct taxation treatment of software and the highlight the uncertainty surrounding such treatment. Chapter five explores the accounting treatment of intangibles and draws on the argument of software being analogous to goodwill and whether or not the benefits that come about by the efficiencies that software may create, can be said to create goodwill.

Chapter six explores the South African and American treatment of expenditure in respect of research and development and compares this with the South African treatment thereof.

The final chapter presents a synthesis of the issues raised in the preceding chapters of the thesis and draws the conclusion that there exists a level of uncertainty in relation to the treatment of software from a taxation perspective.

CHAPTER TWO: THE PROBLEM ENVIRONMENT, AN INDUSTRY PERSPECTIVE

2.1 INTRODUCTION

This chapter presents a comparison and synthesis of the inputs of various stakeholders who were asked to comment about their respective approaches to the taxation treatment of internally developed software. In combining their approaches to the treatment of expenditure incurred in the development of software it becomes apparent that there is a discrepancy in the way in which software is treated, highlighting a need for not only a thorough analysis of the accounting and taxation treatment of such expenditure, but also for standardisation in the industry. Also apparent, to the extent that software may create an intangible asset, is the fact that certain businesses adopt a standardised framework for the treatment of software which necessitates an analysis of these stakeholders' accounting treatment of software.

The practicality of dealing with the treatment of software expenditure may seem to be largely academic as there is very limited literature on the topic. The problem, in the form of the uncertainty as to the taxation and accounting nature of both software and the expenditure incurred in its development is, however, pervasive in the South African industry. Before any discussion can be constructively entered into it is imperative to understand the concerns raised by various leading industry stakeholders. In order to do so the point of departure of this research was a brief consultative process with a number of parties in order to gauge their perspective on the problem. This approach was, to a large extent, exploratory. If, at the outset, industry had returned a definitive answer in the form of a uniform practical approach accepted by the South African Revenue Services to the problem, there would have been no need to explore the nature of the problem any further in the present research.

Notwithstanding the exploratory nature of the enquiries directed at the various industry stakeholders, their responses remain relevant in so far as they have highlighted a need for this niche area to be addressed by the legislature. Software, in itself, represents the combination of a number of components which are combined to form the identifiable element which is known generically as "software". As a result of this it is very difficult to compare the finished product to other property or processes in existence and, therefore, to subject the product to established principles of taxation.

This is because software, existing as a conglomeration of a number of various inputs, has the capability of possessing both capital and revenue characteristics in the same product. Therefore, the argument which arises is that software, due to its unique and dynamic nature, does not conform to the classification of existing products and, therefore, creates a difficulty in that it may not simply be classed, from a taxation perspective, within the ambit of similar types of products already in existence and, therefore requires a unique taxation treatment, divorced from pre-existing established principles. Accordingly, industry players may be considered to be pioneers in this field of law, not by their jurisprudential contribution to the interaction of software with the law of taxation, but by their practical adaptation and application of established principles to this dynamic field. In conducting this analysis the first of the subsidiary goals of the thesis is fulfilled.

2.2 INTERVIEWS WITH INDUSTRY STAKEHOLDERS

The number of interviews was limited to a few representatives of each of the stakeholders, each selected for their involvement in a particular segment of the industry. For example *Singular Systems* were selected because they represent a company that engages in both the development of products for sale, and the outsourcing of development for other companies. In addition the company is headed up by a Chartered Accountant with a software development background. This combination of skills provides for an in depth understanding of the challenges faced by developers from an accounting and taxation perspective. *ABSA Bank* was selected on the basis that, as one of South Africa's largest banks, it has the benefit of understanding the needs of a larger development environment. *Microsoft* was selected as being a key industry player not so much from a development perspective, as very little *Microsoft* development takes place in South Africa, but as being integral in so far as its solutions are implemented in many smaller businesses throughout South Africa. It was, in fact, *Microsoft's* representative who suggested the inclusion of the Departments of Trade and Industry and Science and Technology in the interview phase of this research. Stemming from this suggestion the two departments were interviewed.

The interviews were either conducted personally at the offices of the various stakeholders, or via e-mail. The stakeholders have all given their consent to having the contents of their discussions referred to in this research.

2.2.1 INTERVIEW QUESTIONS

Three questions were presented to each industry respondent and they were then invited to respond. The first and most important question was how software expenditure is actually treated in the industry. The two options in this respect were that it could either be treated as operational expenditure, and therefore revenue in nature, or it could be capital in nature, and therefore capital expenditure. It is the answer to this question that provided the basis for this research.

The second question was whether or not section 11D of the Income Tax Act had any effect on the industry treatment of software expenditure in view of the incentive for those who developed software in the industry to deduct the costs incurred in developing such software in terms of section 11D, and therefore claim a taxation incentive, or whether the industry simply deducted the costs incurred in producing software in terms of the general deduction formula.

The final question posed to the various stakeholders was how the expenditure incurred in respect of software which was developed in-house was treated, as opposed to software which was acquired either by means of license or from external developers, specifically in regard to the allocation of the expenditure incurred in respect of the consulting and development costs.

2.2.2 SINGULAR SYSTEMS

The first, and possibly most informative, interview was with Mr. Anthony Wilmot CA(SA), Managing Director of *Singular Systems*.³⁰ The manner in which *Singular Systems* operates is that it has two facets to its business, creating bespoke software systems for its customers and utilising systems that it has created to generate revenue

³⁰*Singular Systems* is a software development company, formed in March 2002 and a market leader in software development. The firm's initial business was the provision of software products and outsourcing of services in niche areas, including Capital Gains Tax. The business has subsequently expanded into building customised software solutions for its various clients. Further information about the firm is available at www.singular.co.za. Mr. Wilmot was interviewed at the writer's chambers on the 13th of August 2012 and has provided the necessary consent for the use of the contents of the discussion in this paper.

by means of licensing such systems to customers. In this way the company enjoys the unique position of being involved in research and development both for resale purposes and on behalf of customers.

The first concern that was dealt with in the consultation with Wilmot was the taxation and accounting treatment of software within the information technology industry. He pointed out that, to a large extent, the accounting and taxation treatment of software are interdependent as development companies are bound by the accounting principles in respect of their reporting and compliance standards. In so far as the debate regarding capital versus revenue is concerned these standards have a very large impact. By way of illustration, Wilmot pointed out that prudent accountants would not allow a business to record assets on the balance sheet where such assets either have no value or an indeterminate value. The obvious exception to this rule is goodwill. The difficulty, however, is that the recognition of assets such as goodwill will only be possible upon either acquisition or disposal of a business. When software is acquired it is acquired at an ascertainable value, with that value allowing the business to accurately either capitalise or expense the acquisition costs of the software. Where, however, the business creates its own software the valuation of such software becomes more complicated in respect of the calculation of the base value of that software. Therefore the recognition of the value of software as well as whether that software is capital or revenue in nature, presents a difficulty, especially when it is utilised for internal business processes only. In light of the above example one is able to identify a correlation between accounting and tax principles from a practical perspective. Regardless of the theoretical differences between the accounting and taxation principles it is the writer's submission that the practical relationship between the two sets of principles must be accepted as relevant.

Wilmot used the business of *Facebook* as an example. While it is clear that *Facebook's* underlying software must have a value, it is difficult to ascertain such value as the only true measure of its value would be on disposal. Furthermore, the question arises as to what value *Facebook* itself would place on its own software as, although the company has no value in the absence of its software, it is virtually impossible to calculate with any degree of certainty the actual value of such software. This highlights the fact that the enquiry pertains primarily to the relationship between the owner, or purchaser, of software and the software itself and the benefit that such

owner derives from that software in that if software is developed for sale then it is revenue in nature and if it is developed to enhance internal processes then it is capital in nature.

The second concern that is highlighted in the question of valuation relates to internally developed, or custom, software. Wilmot pointed out that one of his primary approaches is that businesses each attempt to differentiate themselves from their competitors and should therefore subscribe to the philosophy that, as their business models differ from their competitors, there is a very strong case for them requiring software which enhances their unique processes, as opposed to having to utilise 'canned', or off-the-shelf software. Wilmot utilised an example of the process-flow management systems in a business as simple as a *McDonalds* outlet. The franchise would have, over the course of its trading lifetime, in Wilmot's opinion, developed highly efficient software algorithms that enable quicker order-processing times. To *McDonalds*, this software would therefore represent a crucial element of its business and accordingly represent an inherently valuable asset to the franchise. To any other fast food outlet, however, the software may be of little or no value as the algorithms may be specific to *McDonalds*' unique processes.

The third element of the problem is that a business' unique processes may, over time, evolve and render the algorithms, or software, which is written to facilitate or speed up those processes, redundant. *Microsoft*, for example, produces a new operating system approximately every three years.³¹ The release of the new software may give rise to compatibility issues with legacy systems and therefore render those legacy systems redundant, a phenomenon common in the software industry, according to Wilmot. The question as to whether or not software's lifecycle is long enough to create an enduring benefit therefore arises, fuelling the debate as to whether or not software expenditure is revenue or capital in nature. This is further evidenced by the relatively short software depreciation periods of two to three years that are acceptable to the Commissioner as set out in South African Revenue Services Interpretation Note 47, issued on the 11th November 2009 and Binding General Ruling No. 7. It is these relatively short periods that blur the distinction between treating the costs involved in the development of software as revenue expenditure as opposed to capital expenditure

³¹ De Witt, C. 2012. Interview. Microsoft, Sandton. 13 September 2012.

because the question that arises is why the Commissioner allows relatively short periods of depreciation for software yet does not allow the costs incurred in respect thereof to be deducted within section 11D. The reason for this is that the allowances recorded in Interpretation Note 47 are derived from section 11(e) of the Act. Self evidently, therefore, these only become applicable if the software to which they are to apply is characterised as capital in nature. Accordingly, in circumstances where the software to which Interpretation Note 47 has become applicable is recognised as capital in nature, the logic behind allowing write-off periods which are relatively short seems, on the face of it, flawed in that the two year write-off period in respect of computer software for personal computers, for example, is not that much longer than it would be if the software expenditure to be treated as revenue in nature, and therefore deducted over a one year period. Furthermore, wear and tear allowances applicable to capital assets in terms of section 11(e) are based upon the cost of the asset and it is conceivable that, in the case of software, these allowances do not mirror the economic reality in circumstances where the economic “cost” of the depreciation of software is so rapid as to not justify the capitalisation thereof.

The next concern raised, which has a bearing on the debate, is the treatment of software in respect of the research and development incentives provided by section 11D of the Income Tax Act. A reading of the section indicates that expenses may be deducted where a capital asset is created, as well as allowing for a 150 per cent deduction (subject to certain requirements to be discussed later). This section therefore allows for the deduction of expenditure which may give rise to a capital asset where such expenditure would not normally be allowed as a deduction in terms of section 11(a) as section 11(a) relates to expenditure which is revenue in nature. This further creates confusion as to the proper treatment of software in two respects. The first is that the possibility exists that a company may declare that it is to undertake research resulting in a capital asset in order to be granted the 150 per cent deduction. In doing so it faces the risk that the research and development deduction will be disallowed if the Department of Science and Technology decides that the section does not apply. The company, having then declared the expenditure to be of a capital nature, will be unable to utilise the provisions of section 11(a) and may then be forced to capitalise the cost of development and amortise the cost over a period. With this risk in mind there is an opportunity cost to the company in deciding whether or

not to utilise section 11D. Furthermore, the section requires pre-approval of the research and development activities, again making the process onerous. Therefore the only benefits, essentially, are the 150 per cent deduction which a company may claim, as opposed to the normal 100 per cent deduction in terms of section 11(a) and the fact that such deduction may be capital in nature thereby giving the taxpayer the opportunity to essentially circumvent the limitation of section 11(a) in relation to capital expenditure and claim as a deduction expenditure which is capital in nature. It must be borne in mind that, although the entitlement to a 100 per cent deduction is available to a taxpayer without the approval of the Department of Science and Technology there still exists the risk that the taxpayer, in invoking the provisions of section 11D, will remain bound by the declaration pertaining to expenditure being capital in nature and therefore precluded from utilising section 11(a) should it be found at any time subsequent to the declaration, that section 11D does not find application to that specific expenditure. At the time of consulting with Wilmot, section 11D(5) excluded from deduction any software which is classified as “internal-use”, or “business application” software. This has subsequently, in terms of an amendment in April 2012, been removed from this subsection and a deduction is only granted in terms of the new section 11D (8)(d) where the final product is to be sold in the course of the business of the person claiming the deduction. Internal use software created for in-house use, therefore, still does not enjoy the benefits of the section.

In so far as the capital versus revenue debate is concerned, the situation appears to be that the customer will have the choice to either purchase the software, the acquisition cost of which will be capital expenditure, and then have such software supported, the cost of which will be operational, or revenue, expenditure, or to lease the software from the developers, with such costs being operational expenditure.³²

A leading software consultancy and development house, *Business Systems Group*, takes the approach of treating its developed software as operational expenditure but has, on occasion, been able to formulate the necessary accounting motivation to treat such software as capital expenditure and then depreciate the software over the acceptable periods contained in Interpretation Note 47 and Binding General Ruling

³² Longley, N. 2012. Personal Communication. Business Systems Group. [E-Mail] 16 August 2012. BSG [On line] Available: www.bsg.co.za.

No. 7.³³ Where section 11D allowed for the claim of an additional fifty per cent, this deduction was claimed. In order to distinguish costs specific to research and development from other costs of the business, developers are required to record the time spent on their tasks so that such time and the resulting cost may be allocated to the specific project.³⁴

2.2.3 ABSA BANK

ABSA Bank also tends to avoid capitalising software and therefore generally treats expenditure incurred in the production of software as operational, or revenue, expenditure.³⁵ Tertius Haak of *ABSA Bank* indicated that the primary factor having a bearing on the decision will be the size of the investment in the software and where such investment is sufficiently substantial, a decision to capitalise may be taken, bearing in mind that the size of the financial investment will also influence the length of the write-off periods. An example of a decision of this nature would be *Standard Bank's* implementation of a billion-rand SAP system that is to be capitalised.³⁶ *ABSA Bank's* primary treatment of software is governed by the application of accounting provisions of International Accounting Standard 38 which deals with the treatment of intangible assets.³⁷ It appears that the tax treatment that *ABSA Bank* accords to the cost of software development is based on the accounting treatment. Accordingly, the provisions of IAS 38 will be required to be discussed in the present research.³⁸

2.2.4 MICROSOFT

Microsoft South Africa finds itself in a slightly different position to the previous two interviewees in that it is essentially a bridge between its American parent and its

³³ Longley, N. 2012. Personal Communication. Business Systems Group. [E-Mail] 16 August 2012. BSG [On line] Available: www.bsg.co.za.

³⁴ Longley, N. 2012. Personal Communication. Business Systems Group. [E-Mail] 16 August 2012. BSG [On line] Available: www.bsg.co.za.

³⁵ Haak, T. 2012. Personal Communication. ABSA Bank. [E-Mail] 14 August 2012. ABSA Bank Investor Relations. [On line]. Available: <http://www.absa.co.za/absacoza/about-absa/investor-relations>. [Accessed: 18 August 2012]

³⁶ Haak, T. 2012. Personal Communication. ABSA Bank. [E-Mail] 14 August 2012. ABSA Bank Investor Relations. [On line]. Available: <http://www.absa.co.za/absacoza/about-absa/investor-relations>. [Accessed: 18 August 2012]

³⁷ As issued by the International Accounting Standards Board. Issued 1998, effective July 1, 1999. Deloitte, International Accounting Standards Plus. [On line]. Available: <http://www.iasplus.com/en/standards/standard37>. [Accessed 17 December 2012]

³⁸ Burger, E. Personal Communication. ABSA Bank [E-Mail] 15 August 2012.

South African clients.³⁹ As a result of this very little actual software development takes place by *Microsoft* in South Africa. Any development needs that may arise are referred back to the United States of America to be dealt with and, where necessary, patented by the *Microsoft* there.

That does not imply, however, that *Microsoft's* business application software is not widely utilised in South Africa. *Microsoft* has taken the approach that it prefers to work with partners who adapt the generic product for implementation in the business environment. Where this involves a certain degree of customisation the strategic development partners will be responsible for this. Accordingly, such partners may face some of the challenges referred to by Wilmot (above).

Clifford De Witt of *Microsoft* pointed out, however, that the industry appears to be moving towards the approach of adopting “software as a service”, whereby it is leased and maintained by external developers, as opposed to developing it in-house. In this way, a company requiring software to complete certain tasks will have the option of making use of various service providers who will, on a contractual basis, provide only the services which the company requires, with the service provider hosting the data off-site and the company accessing its data by means of various “cloud computing” mechanisms. In this way economies of scale ensure that these services may become more affordable and businesses will not be saddled with the inconvenience and expense of supporting entire information technology functions.

The taxation implications of such a paradigm shift would be that the entire debate surrounding the in-house development of software would be irrelevant in that the expenditure in respect of the services would automatically be revenue in nature. It is, however, submitted that the industry developments De Witt refers to will not take the industry by storm in the short term, rendering the present research pertinent at this stage, and likely to remain relevant as long as companies continue to create their own software.

³⁹ De Witt, C. 2012. Interview. Microsoft, Sandton. 13 September 2012.

2.3 CONCLUSION

The industry's approach to the question regarding the deduction of expenditure incurred in the production of software systems highlights the fact that there is a degree of uncertainty surrounding the correct treatment of such deductions. At the very best it appears as if accounting guidelines are utilised in informing the tax treatment of the deductions, guidelines which were not developed from a taxation point of view and are not definitive or prescriptive, evidenced by the industry response that the ultimate choice is just that, a choice that is made by taking into account a variety of factors, with different firms placing a different emphasis on certain of those factors.

From the interviews conducted, as reported in this chapter, it is clear that there are a number of issues pertinent to the present research. The first is the tax principles underpinning the capital versus revenue categorisation of expenditure, specifically in relation to the in-house development of software, in respect of either capitalising, expensing or seeking to invoke the provisions of section 11D for such expenditure. The second is the impact of the accounting provisions on the capital or revenue nature of costs of software development. The third is the provisions of section 11D in relation to the claim for the one hundred and fifty per cent deduction of the cost of software development. Chapter three discusses the first of these issues, namely the capital or revenue nature of the costs of software development.

CHAPTER THREE: GROSS INCOME AND THE GENERAL DEDUCTION FORMULA

3.1 INTRODUCTION

As was explained in chapter two, for the purposes of this research it is important that there is an understanding of the deductibility of expenditure for tax purposes to satisfy the second and third goals of the thesis. The taxation framework differentiates between revenue expenditure, which is deductible for tax purposes in terms of section 11(a), and capital expenditure, which is not, but might possibly be subject to some form of allowance, including a depreciation allowance. Therefore, when regard is had to the practical deduction of expenditure it is important for the taxpayer to differentiate between expenditure which is revenue in nature, and therefore deductible, and expenditure which is capital in nature and not deductible. This distinction has a bearing on two aspects of the discussion. The first is whether or not software which is created internally constitutes a capital asset and secondly, whether the costs incurred in the creation of the software are deductible.

This chapter provides the answer to the second of the subsidiary goals of the research in that it explores the differences between capital and revenue. The chapter first considers the deriving of income from capital assets and the extent to which the sale of a capital asset can be considered to be a mere realisation of such asset as opposed to the embarking upon a scheme of profit making. The deduction of expenditure is then considered in traversing the general deduction formula and the various requirements in order for deduction to be allowable in terms thereof as well as an analysis of the relationship between the nature of the income created and the manner in which the software is employed. Apparent throughout the chapter is the overlap between the concepts of “in the production of income” and “not of a capital nature” as discussed in the general deduction formula and section 23(g). This overlap highlights the fact that software creates a taxation situation where it is not always possible to understand whether the benefit enjoyed by the taxpayer in creating software is utilised in the production of income, and therefore revenue in nature, or one which creates an income-producing structure, and therefore capital in nature.

Finally the chapter will deal with the situation where software is developed for use within the business and therefore does not produce income but may lead to internal

efficiencies which reduce costs and whether or not software which falls into this category is capital or revenue in nature and the ramifications on the classification of the expenditure incurred in the production of that software.

3.2 THE NATURE OF INCOME AND THE DIFFERENTIATION BETWEEN CAPITAL AND REVENUE

The nature of income, from a taxation perspective, is differentiated from the lay understanding of income in that the taxation definition of income divides the general concept into two different categories, capital and revenue. It is therefore of paramount importance to analyse and differentiate the two concepts with reference to the Act and the case law which has contributed to their definition. The distinction between revenue and capital has been referred to as the most fundamental in income tax as it has bearing on both the taxability of receipts and the deductibility of expenses.⁴⁰ Odd as it may seem that such an important distinction has not been legislated for by means of the incorporation of a definition of capital, such an all-encompassing definition would be almost impossible to construct. The absence of a definition has been remedied by the Courts in the formulation of common law tests that have been developed to provide sufficient certainty as to the meaning of the term.⁴¹ In doing so the Courts have confined the characterisation of receipts as being either income or capital, eliminating any uncertainty as to whether or not there may be an additional third category.⁴² In coming to this conclusion the Court, in the matter of *Pyott*, was faced with a question as to whether refundable deposits held by the taxpayer were revenue or capital in nature. The Court found that, as the deposits were neither trust moneys nor capital, they had to be revenue in nature. *Davis AJA*, held that, in fact, there was no midpoint between the two and that income must be characterised as either one or the other.⁴³ This may give rise to criticism regarding certain transactions that clearly fall outside either of the two categories, but such criticism falls outside the scope of this thesis.⁴⁴ It must be understood that although the focus of this thesis is on

⁴⁰ Williams, R.C. 2006. **Income Tax in South Africa, Law and Practice** 4 ed. Durban: LexisNexis Butterworths at 234.

⁴¹ *Pyott Ltd v Commissioner for Inland Revenue* 1945 AD 128.

⁴² *Pyott Ltd v Commissioner for Inland Revenue* 1945 AD 128, applied in both *Oryx Mining and Exploration Ltd (Pty) Ltd v Secretary for Finance* 1991 53 SATC 359 at 372 (NmS) and *Commissioner for Inland Revenue v Pick 'n Pay Employee Share Trust* 1992 4 SA 39 (A), 54 SATC 271 at 287.

⁴³ *Pyott Ltd v Commissioner for Inland Revenue* 1945 AD 128, 13 SATC 121.

⁴⁴ *Commissioner for Inland Revenue v General Motors SA (Pty) Ltd* 1982 1 SA 196 (T), 43 SATC 249 at 254.

the deduction of expenditure incurred in the production of software, a characterisation of that expenditure is impossible without an understanding of the nature of the income which the expenditure, in this case the creation of software, produces, or the nature of the benefit accruing from the application of the software, for example, the distinction between software that is sold or used internally. Accordingly a discussion as to the nature of income is also warranted.

The first comprehensive judicial consideration in relation to differentiating capital from revenue was that of Stratford CJ enquiring whether the receipt was as a result of the productive use of capital employed wherein the relationship between capital and revenue was identified.⁴⁵ This was then further explored as interpreting capital to denote property, in the broadest sense of the word, capable of producing income or wealth.⁴⁶ While many things are, in fact, capable of producing income only some of those things are considered to be capital.⁴⁷ It must be understood that the focus of this research is the capital or revenue nature of expenditure and it is important to remember that the deductibility of expenditure may be informed by the nature of the receipt to which the expenditure gives rise. In an analysis of the concepts of revenue versus capital there may be a certain amount of overlap between the characterisation of a receipt, brought about by certain expenditure, and the nature of that expenditure.

The preferred approach in respect of determining the nature of a receipt appears to be one which derives its base from an analysis of the ordinary economic substance of the transaction.⁴⁸ In ascertaining the ordinary economic substance the Courts will look at what the legal nature of the payment is.⁴⁹ For example, prior to the insertions of paragraphs (c) and (d) of the definition of gross income, when an employer paid an amount to an employee which it was under no legal obligation to pay it could not be said that such amount was income in the hands of the employee, as opposed to where an employee is rewarded for having rendered services in terms of a contractual arrangement.⁵⁰ Therefore, if an amount is not income it can be said to be capital and

⁴⁵ *Lace Proprietary Mines Ltd v Commissioner for Inland Revenue* 1938 AD 267, 9 SATC 349 at 358.

⁴⁶ *Smith v Secretary for Inland Revenue* 1968 2 SA 480 (A) at 489G. It is submitted that the term wealth could have been omitted as it may add to confusion relating to the understanding of wealth being the accumulation of property over an extended period.

⁴⁷ *Smith v Secretary for Inland Revenue* 1958 2 SA 480 (A) at 490E. *FCT v Hatchett* 2 ATR 557 at 559.

⁴⁸ *George Forest Timber Co Ltd v Commissioner for Inland Revenue* 1924 AD 516 at 522, 1 SATC 20.

⁴⁹ *Commissioner for Inland Revenue v Lunn* 1924 AD 94 at 98.

⁵⁰ *Ibid.*

vice versa and these principles may be used as guidelines in the determination of whether expenditure relates to capital or revenue and thus has a bearing on whether or not the expenditure, which is necessarily incurred in the production of that income, is deductible or not.⁵¹ This approach has been cited with approval by the courts as informing their interpretation of the terms revenue and capital.⁵²

The most frequently utilised analogy in South Africa is one that derives originally from the United States, which likens capital to a tree and revenue to the fruit of such tree.⁵³ The metaphor of the fruit and the tree is obviously not to be taken too far as circumstances arise where trees are the product of land and persisting in the metaphor would be illogical.⁵⁴ In the relationship between capital and revenue, it has been found that income is the revenue of capital productively employed.⁵⁵

Within the category of capital there exists a further distinction between fixed and circulating, or floating, capital.⁵⁶ This distinction is important as floating capital may be disposed of in the ordinary course of business and the proceeds are necessarily revenue in nature as the intention of the acquisition of the floating capital was to dispose of it, whereas the intention in acquiring or creating fixed capital is not necessarily to dispose of it in the course of business.⁵⁷ This gives rise to the identification of fixed and floating capital and the differentiation between the two and it is not uncommon for situations to arise where such distinction is difficult to make with any precision. In such cases, the determining factor must be the nature of the trade in which the asset is employed. For example, where land is utilised to grow crops it will be fixed capital but where land is traded in then it will be floating capital.⁵⁸ As interesting as certain of these concepts of capital may be in themselves, a conversion from fixed to floating capital is possible with no more than a change of intention. The assessment of the capital nature of the asset must, therefore, be made at the time when the asset is realized, or income derived.⁵⁹ Of interest in the present

⁵¹ *Commissioner of Taxes v Booyens Estates Ltd* 1918 AD 576, 32 SATC 10.

⁵² *Commissioner for Inland Revenue v Lunnon* 1924 AD 94 at 98.

⁵³ *Eisner v Macomber* United States Supreme Court 1919 252 US 189 at 206, adopted into South African law in *Commissioner of Inland Revenue v Visser* 1937 TPD 77, 8 SATC 271 at 276-277.

⁵⁴ *Estate Bourke v Commissioner for Inland Revenue* 1991 1 SA 661 (A), 53 SATC 86 at 96.

⁵⁵ *Commissioner of Taxes v Booyens Estates Ltd* 1918 AD 576, 32 SATC 10.

⁵⁶ Smith, A. 1776. **Wealth of Nations**. London: W. Strahan & T. Cadell.

⁵⁷ *George Forest Timber Co Ltd v Commissioner for Inland Revenue* 1924 AD 516, 1 SATC 20.

⁵⁸ *Estate Bourke v Commissioner for Inland Revenue* 1991 1 SA 661 (A), 53 SATC 86 at 94.

⁵⁹ *Ammonia Soda Company Ltd v Chamberlain* 1918 1 Ch 266 (CA) and *Bourke supra*.

research is the enquiry as to whether the expenditure in question was incurred to extend or supplement the taxpayer's permanent income earning structure, or whether it was incurred in normal course of the taxpayer's trading activities.⁶⁰ The relevance herein is that if a business develops and trades in software it is clear that the receipts from the sale of the software will be revenue in nature. If, however, the software is developed purely to supplement business processes then they become enabling mechanisms in the production of income and could therefore be classified as being capital in nature. This classification is vital in the understanding of the taxation treatment of software.

The distinction between fixed and floating capital is further supplemented, in relation to deductions, by the concept of trading, in that if a taxpayer is not trading in an asset it becomes difficult to classify that asset as floating capital and, in all likelihood, the asset will be fixed capital in nature.⁶¹ This means that where a taxpayer deals in the asset, the holding of the asset will incorporate it into the category of floating capital, the proceeds of which will be revenue.⁶²

The analysis of the taxpayer's accounting treatment is as important in the determination of the character of property as it is in determining whether the taxpayer is trading in the property in that it may determine the purpose for which property is held. While the enquiry relating to intention is subjective it must be sufficiently borne out by the various objective factors such as the purpose the asset serves or trade that is entered into.⁶³ Intention may therefore be the factor which, in the absence of an intervening factor to show otherwise, will be determinative of whether the sale of an asset is capital or revenue.⁶⁴ However, the authorities have also recognised that to elevate the taxpayer's subjective intention over the other circumstances worthy of consideration would be incorrect and all the circumstances must be considered.⁶⁵ Sight must not be lost of the onus provisions contained in section 102 of the Tax Administration Act, 28 of 2011 (hereafter referred to as the Tax Administration Act),

⁶⁰ *Secretary for Inland Revenue v Trust Bank of Africa Ltd* 1975 2 SA 652 (A), 37 SATC 87.

⁶¹ *Sekretaris van Binnelandse Inkomste v Aveling* 1978 1 SA 862 at 880B-881A.

⁶² *Golden Horse Shoe (New) Ltd v Thurgood* 1934 1 KB 548 (CA) at 563.

⁶³ *Secretary for Inland Revenue v Trust Bank of Africa Ltd* 1975 2 SA 652 (A) at 669 and *Solaglass Finance Company (Pty) Ltd v Commissioner for Inland Revenue* 1991 2 SA 257 (A) at 281B.

⁶⁴ *Commissioner for Inland Revenue v Stott* 1928 AD 252 at 264.

⁶⁵ *Commissioner for Inland Revenue v Guardian Assurance* 1991 3 SA 1 (A) at 19B.

which states that the taxpayer bears the burden of proof as follows: “(1) A taxpayer bears the burden of proving—

- (a) that an amount, transaction, event or item is exempt or otherwise not taxable;
- (b) that an amount or item is deductible or may be set-off;
- (c) the rate of tax applicable to a transaction, event, item or class of taxpayer;
- (d) that an amount qualifies as a reduction of tax payable;
- (e) that a valuation is correct; or
- (f) whether a ‘decision’ that is subject to objection and appeal under a tax Act, is incorrect.”

The frequency with which a taxpayer engages in transactions involving the sale of an asset may also be indicative of a trade but it must be remembered that isolated transactions are not necessarily capital in nature.⁶⁶ In fact, tax may be levied on a single sale if that sale is undertaken in a scheme of profit making.⁶⁷ Therefore, in as much as continuity may be a necessary element in the carrying out of a business, or a scheme of profit making, there may be instances where one single transaction can have the effect of creating revenue, as opposed to merely realising capital.⁶⁸

What must also be considered is that there is a difference between simply realising an investment and disposing of an asset in the course of trade.⁶⁹ While a taxpayer is entitled to realise an asset to best advantage, when an asset is disposed of in the course of a scheme of profit making the proceeds will be revenue in nature.⁷⁰ A disposal of property does not constitute a scheme of profit making, however, where

⁶⁶ *Stephan v Commissioner for Inland Revenue* 1919 WLD 1, 32 SATC 253.

⁶⁷ *Commissioner for Inland Revenue v Lydenburg Platinum Ltd* 1929 AD 137.

⁶⁸ *Commissioner for Inland Revenue v Lydenburg Platinum Ltd* 1929 AD 137.

⁶⁹ *Californian Copper Syndicate v Harris* 1904 5 TC 159 at 165-166.

⁷⁰ *Natal Estates Ltd v Secretary for Inland Revenue* 1975 4 SA 177 (A), 37 SATC 193.

the asset disposed of is not one which is being traded in for the purposes of making a profit. This renders the proceeds from such disposal a capital gain in nature.⁷¹

There is a certain limited extent to which the taxpayer can seek the protection of the best advantage principle, which allows a taxpayer to dispose of his assets at the best possible price without being said to conduct a trade, and therefore being liable for taxation on the sale of those assets. Once the taxpayer passes the determined threshold, or “crosses the Rubicon”, he will be said to have embarked on a scheme of profit making and will become liable for taxation on any gain he may make. Accordingly, by disposing of software developed for internal use at a profit, either by means of licensing or outright sale, a taxpayer might be said to have embarked on a scheme of profit making in respect of that software and therefore be liable for taxation on those profits.⁷² Accordingly, it is important to understand the distinction between software used to enhance internal business processes, which may be capitalised, and software which is sold or licensed in the process of conducting a trade. If the software is used exclusively in the enhancement of internal business processes it will not be sold in a scheme of profit making and will therefore be capital in nature. If, however, that software is also sold, it will be considered to be sold in a scheme of profit making.

What, therefore, constitutes a scheme of profit making? The normal meaning attributed to a scheme of profit making is the acquisition of an asset with an intention of disposing it at a profit.⁷³ The taxpayer may have a dual intention in respect of an asset. For example, while software may be utilised primarily for internal purposes, where the taxpayer elects to either sell or license it for a fee the dominant intention in respect of that transaction will be to make a profit and the taxpayer will be liable for income tax on that revenue.⁷⁴ In respect of the enquiry in relation to the intention of companies there are a number of methods of gauging the intention of a corporate *persona* including *inter alia*, its objects, activities, policy, the circumstances of acquisition of the property and the circumstances of its realisation.⁷⁵ Where, however,

⁷¹ *Commissioner for Inland Revenue v Pick 'n Pay Employee Share Purchase Trust* 1992 4 SA 39 (A), 54 SATC 271 at 280.

⁷² *Natal Estates Ltd v Secretary for Inland Revenue* 1975 4 SA 177 (A), 37 SATC 193.

⁷³ *Elandsheuvel Farming (Edms) Bpk v Sekretaris van Binnelandse Inkomste* 1978 1 SA 101 (A), 39 SATC 163 at 180-181.

⁷⁴ *African Life Investment Corp (Pty) Ltd v Secretary for Inland Revenue* 1969 4 SA 259 (A), 21 SATC 163 at 175.

⁷⁵ *Lace Proprietary Mines Ltd v Commissioner for Inland Revenue* 1938 AD 267, 9 SATC 349 at 359-360.

taxpayers find themselves in a dual purpose situation where neither aim is proved to be dominant they will not have discharged the onus resting upon them in respect of proving their contentions.⁷⁶

The more difficult question arises in respect of software as to the effect of licensing, as there is no change of ownership of the property. It is submitted that in the circumstances where software is licensed the amounts received are revenue.⁷⁷ These essentially amount to intellectual property rights and the assignment thereof, which results in periodical receipts that will, in the normal course of events, constitute income.⁷⁸ This assignment can be equated to the granting of use of a capital asset, the income from which is revenue in nature.⁷⁹

Essentially, profit in respect of software may be derived in a number of ways. The first is that the software may be sold outright. The second is that it may be licensed out. For example, a strategic partner, as referred to by *Microsoft's* De Witt in the previous chapter, may be engaged to implement *Microsoft's* software in a business environment on a consulting basis. It may be said that the consulting element, in so far as analysing the requirements and designs associated with the clients' required infrastructure is concerned, is the partner's primary trade. Where that partner is required to create patches, or software links, in order to ensure that *Microsoft's* generic software is seamlessly integrated into the client's environment, and the partner charges for the patches, the partner is engaged in a scheme of profit making in respect of the software it has developed.

In conclusion, therefore, it is essential that the nature of the software is properly characterised as either revenue or capital, evinced by the intention of the taxpayer who developed the software and the manner in which he deals therein. There are various factors which need to be taken into consideration in determining the nature of an asset. It must be determined whether the software is utilised for internal purposes, and may therefore be said to create a capital asset, or whether it is created to be sold, thereby rendering the proceeds therefrom revenue in nature.

⁷⁶ *Commissioner of Taxes v Glass* 1962 1 SA 872 (FC), 24 SATC 499 at 517.

⁷⁷ *Commissioner of Taxes v Booyens Estates Ltd* 1918 AD 576, 32 SATC 10.

⁷⁸ Williams, R.C. 2006. **Income Tax in South Africa, Law and Practice** 4 ed. Durban: LexisNexis Butterworths at 253.

⁷⁹ *Millin v Commissioner for Inland Revenue* 1928 AD 207, 3 SATC 170.

3.3 THE DEDUCTION OF EXPENDITURE

It is submitted that the taxation treatment of software may find some guidance in the principles developed in relation to the relatively new field of electronic commerce. The advent of electronic commerce was faced with the difficulties of being dealt with within the confines of traditional trading methods and the mechanisms associated therewith. Over a relatively short period of time, however, the importance of electronic commerce has been recognised, with such recognition leading to the recognition in the taxation and legal treatment of the new method of trading. The development of software represents a similar challenge to the sphere of taxation and the importance of the relationship between the fields of software and taxation will have to be recognised and dealt with effectively by the legislature. It is submitted that the taxes applied to electronic commerce ought to give effect to the principles contained in the Ottawa Taxation Framework Conditions, the most important of which is neutrality.⁸⁰ The relevant provisions of this principle are that “taxation should seek to be neutral and equitable between forms of electronic commerce and between conventional and electronic forms of commerce and that taxpayers in similar situations carrying out similar transactions should be subject to similar levels of taxation.”⁸¹ The relevance of this statement speaks primarily to the fact that no matter what the nature of the property is, it must be afforded the same treatment as any other property being dealt with in the same context. Therefore where the properties of the subject concerned are similar to the properties of some other subject, the principles applicable to the other latter should be applied. Accordingly, the fact that software may be a new species of property, falling between both capital and revenue, there is a need to establish a uniform, or at least certain, taxation treatment for expenditure incurred in its development.

Taxable income has been referred to as an artificial and purely statutory concept unique to the legislation which creates it and therefore not necessarily synonymous

⁸⁰ OECD. 2003. **Implementation of the Ottawa Taxation Framework Conditions**. [On line] Available Online at: <http://www.oecd.org/dataoecd/45/19/20499630.pdf>. [Accessed 2 August 2012] at 12.

⁸¹ OECD. 2003. **Implementation of the Ottawa Taxation Framework Conditions**. [On line] Available Online at: <http://www.oecd.org/dataoecd/45/19/20499630.pdf>. [Accessed 2 August 2012] at 12.

with income or profit as conceived in accountancy or economics.⁸² Therefore the adjudication of tax matters focuses on the requirements of the Act, regardless of their accounting treatment.⁸³ This is not to say that there is never an overlap between the accounting treatment and the tax treatment of expenditure.⁸⁴ It has already been highlighted in the previous chapter that certain accounting principles in relation to the development of software are applied in practice to determine the capital or revenue nature of the software. These principles will be discussed later in chapter five. The Act itself requires that Generally Accepted Accounting Practice be applied in areas such as the valuation of trading stock.⁸⁵ While the accountant's treatment bears no formal relationship to the taxation treatment of expenditure, it may not be entirely irrelevant in that it may be instructive as to the intention with which the taxpayer treated the expenditure at the time of compiling the taxpayer's financial statements.⁸⁶

Deductions in terms of the Income Tax Act have been dealt with briefly in the first chapter of this work. However, it is important that they are thoroughly discussed in order to provide the basis for the analysis to follow later.

3.4 THE GENERAL DEDUCTION FORMULA

The Income Tax Act provides for allowable deductions in the determination of taxable income by means of a two-tier framework. The first of these is contained in the preamble to section 11 and section 11(a) of the Act, which provides the general requirements to be fulfilled in order for expenditure or a loss to be deducted.⁸⁷ This is to be read with section 23(g) which sets out what is known as the negative criteria test, regulating the disqualifying requirements in respect of what may not be deductible

⁸² *Pyott Ltd v Commissioner of Inland Revenue* 1945 AD 128, 13 SATC 121 at 126; Williams, R.C. 2006. **Income Tax in South Africa, Law and Practice** 4 ed. Durban: LexisNexis Butterworths at 261.

⁸³ *Sub-Nigel Ltd v Commissioner for Inland Revenue* 1948 4 SA 580 (A), 15 SATC 381 at 389, *Secretary of Inland Revenue v Eaton Hall (Pty) Ltd* 1975 4 SA 593 (A) at 958.

⁸⁴ *Plate Glass and Shatterprufe Industries Finance Co (Pty) Ltd v Secretary of Inland Revenue* 1979 3 SA 1124 (T), 41 SATC 103 and *ITC 1485* 52 SATC 337. This should be differentiated by the Australian and English positions as the South African basis for taxation, *vis* taxable income, is contained in the Income Tax Act 58 of 1962. *Commissioner of Taxes v Executor Trustee and Agency Co of South Australia Ltd* 1938 63 CLR 108.

⁸⁵ Section 22(3)(b) of Act 58 of 1962.

⁸⁶ *Commissioner for Inland Revenue v Manganese Metal Company (Pty) Ltd* 1996 58 CLR 1 (TPD) at 19-20.

⁸⁷ Williams, R.C. 2006. **Income Tax in South Africa, Law and Practice** 4 ed. Durban: LexisNexis Butterworths at 262.

and is, accordingly, the general deduction formula.⁸⁸ In addition to the general deduction formula there are specific deductions allowable in respect of certain classes of expenditure, which will be dealt with at a later stage. Furthermore, it should be noted that deductions are allowable only in the year in which they were incurred.⁸⁹

The point of departure is therefore the preamble to section 11 and section 11(a), which provide that: “for the purposes of determining the taxable income derived by any person from carrying on any trade, there shall be allowed as deductions from the income of such person so derived: (a) expenditure and losses **actually incurred in the production of income**, provided such expenditure and losses **are not of a capital nature.**”⁹⁰ [emphasis added] This creates five requirements, namely, that the taxpayer must be carrying on a trade from which income is earned, there must be expenditure or a loss, which is actually incurred, in the production of income, and not of a capital nature.⁹¹ The final requirement (being not of a capital nature) presents the most challenging element to this discussion.

There must be expenditure or losses. This thesis is concerned with the voluntary outlay of resources as opposed to losses, which are the involuntary deprivation of assets.⁹² Expenditure has, in the authorities, been further distinguished between deliberate expenditure, *bona fide* incurred for the purposes of trade, which is deductible “no matter how rash or unnecessary the expenditure may be”, and fortuitous expenditure, involuntarily incurred because of some mischance or misfortune.⁹³ For the purposes of this thesis this part of the enquiry will be confined to expenditure only.⁹⁴

Expenditure in this respect is not confined strictly to cash expenditure and may include the value of any outlay, such as an assignment of rights, made in lieu of a financial outlay.⁹⁵ For example, a situation may occur where a business with

⁸⁸ Williams, R.C. 2006. **Income Tax in South Africa, Law and Practice** 4 ed. Durban: LexisNexis Butterworths at 262.

⁸⁹ *Sub-Nigel Ltd v Commissioner for Inland Revenue* 1948 4 SA 580 (A) at 589.

⁹⁰ Section 11(a) of Act 58 of 1962.

⁹¹ Williams, R.C. 2006. **Income Tax in South Africa, Law and Practice** 4 ed. Durban: LexisNexis Butterworths at 264.

⁹² *Joffe & Co (Pty) Ltd v Commissioner for Inland Revenue* 1946 AD 157 at 166-167, *Allen v Farquharson Brothers & Co* 17 TC 59 at 64.

⁹³ *Commissioner of Taxes v Rendle* 1965 1 SA 59 (SRA) at 61.

⁹⁴ *Commissioner of Taxes v BSA Co Investments* 1966 1 SA 530 (SRAD) 28 SATC 1.

⁹⁵ *Caltex Oil (SA) v Secretary of Inland Revenue* 1975 1 SA 665 (A), 37 SATC 1.

sufficient development resources may incur reciprocal obligations in respect of the development portion of a project in furtherance of an ongoing relationship with a client, without charging the client. Resources are still utilised, the value of which will need to be accounted for.

The next requirement is that the expenditure must be actually incurred. This is advantageous in that the expenditure need not be necessarily incurred but only actually incurred, meaning that the Commissioner is not vested with the discretion to disallow expenditure he deems to have been unnecessarily incurred.⁹⁶ Accordingly, deductions must be allowed where, although not necessarily incurred, they were actually incurred.⁹⁷ This is best summarised in the dictum of Williams, J in *Tweddle v FCT*, confirmed in *FCT v BHP Billiton Finance Ltd* where it was held that the function of taxation legislation and those tasked with enforcing it is not to dictate to the taxpayer the manner in which he should run his business, but rather to deal with the taxpayer's business as they find it.⁹⁸

Where there is a suspicion that the nature of the deduction is not what it purports to be, an enquiry will have to be conducted and effect given to the “substance-over-form” principles and, in having regard to the substance, it will also be necessary to quantify the value of the deductions in dispute in order to potentially sever that which is deductible from that which is not.⁹⁹ In determining the value associated with a deduction regard must be had to the evidence of those with extensive knowledge of the industry as, where there is a debate as to the assignment of rights in relation to software, those best in the position to explain the value of such software must do so.¹⁰⁰

The fact that the expenditure has been incurred does not necessarily mean that it has been paid but rather that the taxpayer is under an unconditional obligation in respect of the amount in question.¹⁰¹ The deduction must be claimed at the time when it is

⁹⁶ *Nasionale Pers Bpk v Kommissaris van Binnelandse Inkomste* 1986 3 SA 549 (A) at 564A-C, *ITC* 152 (1929) 4 SATC 299 at 300.

⁹⁷ *Port Elizabeth Electric Tramway Co Ltd v Commissioner for Inland Revenue* 1936 CPD 241, 8 SATC 13.

⁹⁸ 2010 ATC 20 169 at para 18, 1942 180 CLR at 7.

⁹⁹ *Kilburn v Estate Kilburn* 1931 AD 501 at 507.

¹⁰⁰ *ITC* 1832 2010 72 SATC 6 at 28.

¹⁰¹ *Ackermans Ltd v Commissioner South African Revenue Services* 2011 1 SA 1 (SCA) 73 SATC 1.

incurred, as it may not be claimed in subsequent years of assessment.¹⁰² Where the liability is contingent the liability is incurred only when the contingencies are fulfilled and the liability becomes certain.¹⁰³

Where an asset is acquired, or created, which is capital in nature and it is subsequently converted to a revenue nature, for example by means of trading in it, the value at which the cost of such asset is deductible, is the market value of the asset fixed on the date of the relevant event, such as the conversion.¹⁰⁴ The market value of the software then becomes the value of the trading stock.

The next requirement is that the expenditure must have been incurred in the production of income. Therefore deductions used to produce exempt income are not allowable.¹⁰⁵ The requirement that expenditure is incurred in the production of income is the second most important element for the purposes of this thesis.

The *locus classicus* is the decision in *Port Elizabeth Electric Tramway Co Ltd v CIR* where it was held that the purpose of the act giving rise to the expenditure must be determined and, where the expenditure is outlaid for the *bona fide* purpose of carrying on a trade which earns resultant income, such outlay will be deductible.¹⁰⁶ This test will also be relevant in the final requirement, *vis*, that the expenditure incurred must not be of a capital nature.

The enquiry in regard to the requirement of the general deduction formula that the expense is incurred in the production of income relates to two requisites. Firstly there must be a subjective element on the part of the taxpayer in that the taxpayer's purpose in incurring the expenditure must be *bona fide* in the production of income and, secondly, that the objective enquiry in respect of the link between the act and the expenditure incurred supports the subjective conclusion.¹⁰⁷

¹⁰² Williams, R.C. 2006. **Income Tax in South Africa, Law and Practice** 4 ed. Durban: LexisNexis Butterworths at 266.

¹⁰³ *Commissioner for Inland Revenue v Golden Dumps (Pty) Ltd* 1993 55 SATC 198 AD at 206.

¹⁰⁴ Section 22(8)(b) and 22(8)(B) of Act 58 of 1962.

¹⁰⁵ See section 23(f) of Act 58 of 1962.

¹⁰⁶ 1936 CPD 241, 8 SATC 13.

¹⁰⁷ *Port Elizabeth Electric Tramway Co Ltd v Commissioner for Inland Revenue* 1936 CPD 241, 8 SATC 13 at 18.

The second leg of the enquiry was explored in *Commissioner for Inland Revenue v Genn & Co.*¹⁰⁸ That case concerned the deductibility of certain amounts in respect of loans, namely interest, which was initially allowed and commissions, which were disallowed and which formed the basis of the appeal.¹⁰⁹ The approach of Schreiner JA was that, in assessing the closeness of the connection between the act and the expenditure, the Court should make a finding as to both the purpose of the expenditure and the actual effects thereof.¹¹⁰

In light of the above it is clear that expenditure incurred in producing software for sale, to generate income from letting its use or to use in the business, will fulfill the first four of the legs of the “general deduction formula” with the difficulty only arising in relation to final leg of the enquiry, *vis*, that of whether the expenditure is capital or revenue in nature. It must therefore be decided what the purpose of the expenditure is. If the purpose of the expenditure is to fulfill the needs created by the inherent operational requirements of the firm, as opposed to creating or improving enduring operational efficiencies, then the expenditure, it is submitted, would be incurred in the production of income. An analysis is therefore necessary as to the actual benefit that licensed software, in fact, creates for the taxpayer seeking to deduct the costs of its production. Where a business creates software that is highly sought after by the creator’s clients, or the market in general, there can be little doubt that the creator will exploit that software in the form of either selling or licensing it. If the creator of the software sells the proprietary rights to the software, or is called upon to develop software, where the underlying intellectual property remains with the client, it is unlikely that the creator will be able to sell or license that software repeatedly as it has divested itself of the software’s underlying intellectual capital. Therefore there can be no enduring benefit enjoyed by the creator and the software. The expenditure incurred in the process of creating it will be considered to be revenue in nature, a classification which favours the taxpayer as there is no capital asset created by the taxpayer.

Where, however, the creator of software retains the underlying intellectual property, as well as the rights in the software itself, that creator is able to avail the use of the software to clients in return for a lease payment. The creator is able to derive a benefit

¹⁰⁸ 1955 3 SA 293 (A).

¹⁰⁹ 1955 3 SA 293 (A) at 298F.

¹¹⁰ 1955 3 SA 293 (A) at 299F, reiterated in *Commissioner for Inland Revenue v Standard Bank of SA Ltd* 1985 4 SA 485 (A) at 500-501.

from the software, likening it to the example of the fruit and the tree, the software then being the tree and the revenue stemming from that base being the fruit. Therefore, in circumstances where software is licensed there is a definite case to be made for the software being capital in nature. The basis for this distinction is that software which is created and licensed to derive an income, while not disposing of the rights to license that software, creates a capital asset whereas software which is created and sold in its entirety, along with any rights to license that software, does not create a capital asset.

The question then arises as to the extent of the benefit of retaining the intellectual property in software which a taxpayer develops. It is clear that, where the creator retains the intellectual property in software, it will be capital in nature in that the licensing and sale, on a non-exclusive basis, of the software will be revenue created by the software. However, given the short lifecycle of software, there may be a large degree of uncertainty as to the extent of the actual benefit enjoyed by the creator as his creation may be obsolete within a period ranging from a year to five years. If this is the case then can it be said that there is a benefit enduring for a sufficiently long period to require the costs of creating the software to be capitalised, an undesirable situation for the taxpayer in that the costs incurred in the development of the software are not immediately deductible? This is to be discussed in the next chapter.

The question also arises as to what the position is in circumstances where software is created for internal use only, thereby possibly leading to internal efficiencies and therefore reduced costs. The enquiry, therefore, is whether or not these efficiencies are capital or revenue in nature. The point of departure is that in-house developed software or software which is purchased to be used internally, is not re-sold and therefore does not form part of the business' direct cost of sales. This is not to say, however, that the efficiencies do not produce an income as, by reducing costs, they may be responsible for an indirect production of income but, rather, that the contribution made by such software may be capital in nature. What appears to be necessary is an analysis of the benefits derived by the business as a result of the efficiencies. This analysis will be based on the principles contained in the following chapter, primarily, whether those efficiencies give rise to a benefit which endures for a sufficiently long period. If the efficiencies give rise to enduring benefits then they will be capital in nature and the costs incurred in the production, or acquisition, of the software from which the efficiencies flow, would be capital in nature and not

deductible in the ordinary course. If, however, the benefits derived from the efficiencies are not enduring, or are relatively short-lived, then the expenditure incurred in the production, or acquisition, of the software giving rise to the efficiencies would be revenue in nature and deductible in accordance with the basic principles.

Accordingly, the classical rigidity of the general deduction formula could conceivably lead to a position where there may be no deduction of expenditure incurred in the production of in-house software. In addition, section 11D (8) (d) completely precludes the deduction thereof. Accordingly, the situation may arise where the taxpayer, in developing internal software, may find itself in a position where it is unable to avail itself to the advantages of the Act in so far as software developed for internal use is concerned, a situation which is not at all desirable.

3.5 THE NATURE OF THE EXPENDITURE INCURRED IN THE CREATION OF SOFTWARE

Before an analysis of the deductibility of the expenditure can be undertaken the expenditure incurred must first be identified. The primary input in the development of software is the skills and expertise of the various employees utilised in a number of roles, including analysts, tasked with identifying the problem which the development project seeks to solve, designers, tasked with converting the outcomes identified by the analysts into meaningful process flows which are to be utilised by programmers, or engineers, who will convert the designers' instructions into computer code. It should be noted that, depending on the scale of the project, there may often be an overlap as a single employee may assume multiple roles, or even different roles on different projects. In addition considerable time is spent in testing the software which is produced before it is placed in production. The salaries of those professionals involved in the development process may be the biggest expense in the development of software.

In addition to salaries are the standard fixed costs, such as office space, technological infrastructure, such as hardware and the various computer programs that assist the developers in creating software. An exhaustive list of all the different types of expenditure is unnecessary for the purposes of this thesis in that it is simply expenditure incurred in the production of software which is explored collectively

herein. Therefore, although the Income Tax Act may make provision for certain types of expenditure under specific provisions, the discussion for current purposes must remain framed in general terms.

3.6 CONCLUSION

The capital versus revenue distinction is one that has a significant bearing on the taxability of income and the deductibility of expenditure, especially in light of the differential rates of tax and tax treatment. The distinction has an important bearing on the question of the treatment of software and expenditure incurred in its creation.

South African law has incorporated various tests in making the distinction between capital and revenue from other countries, most notably the United States of America which uses the analogy of capital being a tree from which fruit is produced. In ascertaining the nature of the receipts regard is had to the nature of the taxpayer's trade, as well as the nature of the asset. Once these have been determined, the intention of the taxpayer is to be gauged. This is of particular importance in the sphere of software as developers will have a unique approach to the taxation treatment of their software, as was highlighted in chapter two, that can only be gauged by having regard to the developer's *ipse dixit*, substantiated by the relevant objective factors.

This chapter began by highlighting the importance of determining the nature of the expenditure incurred. In doing so the primary inputs utilised in the production of software were identified with the more important of these identified as being the salaries of employees involved in the development of software and the fixed costs of accommodating these employees.

The chapter then proceeded with a discussion of the nature of receipts generated by the expenditure incurred. This discussion incorporated an exhaustive analysis of the authorities in relation to the receipts derived as a result of the product of the expenditure incurred. In doing so regard was had to the analysis used in the United States' decision of *Eisner v Macomber* which likened capital to a tree and revenue to the fruit of such tree, giving rise to the enquiry as to whether or not expenditure created a capital asset, the tree, or products which are sold, the fruit.¹¹¹ It was noted

¹¹¹ 1919 252 US 189 at 206.

that there also exist divisions within the capital classification and that caution must be exercised in classifying expenditure or receipts as either capital or revenue. Apparent from the discussion was that the taxpayer's accounting treatment of its receipts and expenditure may be a useful tool in determining the nature thereof while bearing in mind that the onus of proof in respect of such classification will be on the taxpayer.

Having laid the basis for the analysis the chapter dealt with the various factors which may be of assistance in the identification of capital or revenue income and the caveats associated with the taxpayer's invoking of the "best advantage" principle, which principle creates the scope for a taxpayer to argue that it was simply disposing of a capital asset at the best possible rate it could procure, thereby allowing the receipts to be taxed at a lesser rate.

The chapter then discussed the deduction of expenditure, specifically in relation to the general deduction formula and the requirements thereof, *vis*, that deductions shall be allowable in respect of *expenditure and losses actually incurred in the production of income, provided that such expenditure and losses are not of a capital nature.*¹¹² The primary considerations of this section in relation to software are the requirements that the expenditure must be incurred in the production of income and that such expenditure should not be of a capital nature. Accordingly, the chapter considered these two requirements in greater depth than the other requirements. Emphasis was placed on the capital consideration and the foundation set for that to be considered in detail in the following chapter. Finally, the chapter considered the capital or revenue nature in relation to software developed for internal use and the difficulty arising in relation to the classification and consideration of this software. It is upon this basis that the next chapter is to analyse the tests used to determine the nature of software expenditure.

It would be simplistic to assume that the nature of the expenditure incurred by the taxpayer is easily ascertainable. In light of the importance of the classification associated with the determination of whether the expenditure is capital or revenue in nature it is imperative that the assessment thereof is done systematically and with

¹¹² Section 11 (a) of Act 58 of 1962.

regard to generally accepted principles, thereby allowing for an element of certainty. Accordingly there are a number of tests which may be utilised. These tests form the basis of the following chapter.

CHAPTER FOUR: THE TESTS USED TO DETERMINE THE NATURE OF EXPENDITURE

4.1 INTRODUCTION

It has been determined that it is of critical importance to classify expenditure incurred in respect of the creation of software as either capital or revenue in nature as such classification will have taxation consequences. The fourth goal of this thesis is a discussion of the appropriateness of the taxation treatment of the costs of the development of software in the current legislative framework, such framework necessarily including the judicial development of the tests used in determining the nature of expenditure. In this chapter the various capital versus revenue tests are explored in relation to software. The most important of these tests is the enduring benefit test. Accordingly an analysis of this test constitutes the majority of this chapter.

The software industry represents a dynamic and highly competitive environment in which international mobility in the same field often renders it impossible to remain a market leader in a specific type of software for an extended period, let alone an ascertainable period. In addition, the relative ease with which software can be created has increased the pace of the industry's dynamism and development. A combination of these factors has the capacity to render software obsolete after relatively short periods of time.

Therefore, even where software may conceivably be considered to be capital in nature, it is possible that the benefit created by that so-called capital asset will be so short-lived as to render it unable to fulfill the true characteristics of a capital asset. This may have the advantage of allowing for the immediate deduction of the cost of software. In circumstances such as these, however, the nature of the software in relation to taxation must be carefully analysed to correctly ascertain whether or not it is, indeed, a capital asset. It is submitted that the unpredictable nature of the industry and software lifecycles makes it impossible for the results of even the most thorough analysis of the capital or revenue nature of the expenditure to be accurate.

4.2 THE ENDURING BENEFIT TEST

The debate in this thesis has centered on the deductibility of expenses in respect of internally developed software and whether the deduction of such expenditure is, in fact, appropriate in relation to the nature of the software. Central to this deductibility is the nature of the product which the expenditure produces. Lord Cave stated that: “where expenditure is made, not only once and for all, but with a view to bringing into existence an asset or advantage for the enduring benefit of a trade, I think there is very good reason for treating such an expenditure as properly attributable not to revenue but to capital.”¹¹³

While this *dictum* does not represent an exhaustive test, and is to be reconciled with the other tests laid down in the authorities, it has been referred to as a useful guide in the determination of the character of the expense.¹¹⁴ The degree of permanence depends on the nature of the business.¹¹⁵ It has been held that the length of a benefit, where contractually conferred, is to be determined at the inception of the contract.¹¹⁶ Therefore, it would ordinarily follow that the length of the benefit to be conferred by software should be determined at the outset of the development process. This obviously cannot be applied where an asset is developed in-house with an indeterminate lifecycle. Where, for example, the software will become redundant within the same tax year in which it was created, there can be no question that the benefit is not an enduring one.¹¹⁷ It should be noted that the test in respect of an enduring benefit is not necessarily whether there is a permanent or fixed asset that comes into existence but whether there is a benefit or advantage which endures in a way that fixed capital does.¹¹⁸

One interpretation of an enduring benefit has been that the benefit must endure for a sufficiently long period so as to relieve the taxpayer of a revenue payment or, put more clearly, to relieve the taxpayer of any obligation to make a payment of

¹¹³ *British Insulated & Helsby Cables v Atherton* 1926 AC 205 at 213-214. It should be noted that he also recognised that such statement was of application in the absence of special circumstances.

¹¹⁴ *Commissioner for Inland Revenue v African Oxygen Ltd* 1963 1 SA 681 (A), 25 SATC 67.

¹¹⁵ *Commissioner for Inland Revenue v African Oxygen Ltd* 1963 1 SA 681 (A), 25 SATC 67 at 77.

¹¹⁶ *Commissioner for Inland Revenue v African Oxygen Ltd* 1963 1 SA 681 (A), 25 SATC 67 at 76.

¹¹⁷ *Commissioner for Taxes v Nchanga Consolidated Copper Mines Ltd* 1964 AC 947, 26 SATC 37 (PC) at 44.

¹¹⁸ *Commissioner for Inland Revenue v Manganese Metal Company (Pty) Ltd* 58 SATC 1 at 12.

expenditure which is revenue, and not capital, in nature.¹¹⁹ This has been interpreted as being in favour of the deduction as revenue expenditure of an expense which may not provide a long term advantage to the trade.¹²⁰ In the matter of *CIR v Manganese Metal Company* the issue giving rise to the apparently contradictory finding was that although what was created was a structure of a permanent and therefore ordinarily capital nature that structure was only of use to the taxpayer for a limited period. The principle remains that the purpose for which the asset has been created or acquired must be ascertained. Where, therefore, monies are expended and give rise to an advantage, it is the duration of the advantage which will inform the nature of the advantage and therefore the nature of the expenditure.¹²¹

4.2.1 ENDURING BENEFIT: A SYNTHESIS THROUGH THE AUTHORITIES

The nature of capital was encapsulated in the dictum of Innes CJ in *Commissioner for Inland Revenue v George Forest Timber Co. Ltd* where it was held that capital was the wealth employed in creating fresh wealth, invested to produce income.¹²² He highlighted that money expended in creating or acquiring a source of profit is capital in nature, as opposed to the money expended in working the capital, which is revenue.¹²³ In reiterating the approach he continued: “in the case of capital the expenditure enables the concern to yield profits in the future, in the case of revenue the expenditure is spent in working the concern for the present production of profit.”¹²⁴

One of the authorities most frequently referred to in respect of the determination of revenue versus capital expenditure is that of *New State Areas Ltd v Commissioner for Inland Revenue*.¹²⁵ In that matter Watermeyer CJ undertook an extensive analysis and reconciliation of the determination of the nature of expenditure. In dealing with the ‘once and for all’ test of *Vallambrosa* the learned Judge pointed out that the test is of little value in matters where capital expenditure may appear to be revenue as a result of the structuring of the payments in instalments, or where revenue expenditure

¹¹⁹ *Anglo-Persian Oil Co Ltd v Dale* 1931 16 TC 253 at 262.

¹²⁰ *Commissioner for Inland Revenue v Manganese Metal Company (Pty) Ltd* 1996 58 SATC 1 at 12.

¹²¹ *Inland Revenue Commissioners v Carron Co* 45 TC 18 at 68.

¹²² 1924 AD 516 at 525.

¹²³ 1924 AD 516 at 525.

¹²⁴ 1924 AD 516 at 525.

¹²⁵ 1946 AD 610, 14 SATC 155.

appears to be capital expenditure as a result of the payments being effected in a lump sum.¹²⁶

He therefore affirmed the English principle that the true character of the transaction must be gauged. It was held that when expenditures are made, not only once and for all, but with a view to bringing into existence an asset or advantage for the enduring benefit of the trade, there is good reason for treating such expenditure as properly attributable not to revenue but to capital. It was noted, however, that there are a number of instances in English authority that have held that lump sum payments in respect of the acquisition of lasting benefits are revenue expenditure, the most notable of which was *Mitchell v B.W. Noble Ltd.*¹²⁷ In that matter Lord Hanworth found the expenditure paid to dispose of a delinquent director, in the form of five annual instalments, to have been in the course of business, made not to secure an actual asset but to enable the company to carry on the same type of high quality of business unimpeded by the delinquent director, the continued presence of whom could have had adverse effects upon the business.¹²⁸ This, it is submitted, may have been interpreted somewhat differently in our modern jurisprudence as being the protection of the goodwill of the company and therefore capital in nature.

4.2.1.1. Enduring benefit: A question of fact or law?

The principle to be gleaned from the case is that the true character of the expenditure is a matter of fact, the purpose of such expenditure being an important factor and even if expenditure of a capital nature is paid by means of instalments, or expenditure of a revenue nature is paid in a lump sum, the transaction must be afforded its true classification.¹²⁹

A useful synthesis of the debate pertaining to the enquiry is found in the Judgment of Ogilvie Thompson JA in the matter of *Secretary for Inland Revenue v Cadac Engineering Works (Pty) Ltd* where he held that the conclusion to be drawn from all of these cases seems to be that the true nature of each transaction must be enquired into in order to determine whether it is capital or revenue.¹³⁰ This case concerned the

¹²⁶ 1946 AD 610, 14 SATC 155 at 165.

¹²⁷ 1927 1 KB 719.

¹²⁸ 1927 1 KB 719 at 737.

¹²⁹ 1946 AD 610, 14 SATC 155 at 170.

¹³⁰ 1965 2 All SA 547 (A).

manufacture of a gas-cooking appliance and an application for the protection of the design against an alleged infringer in the form of an interdict, such application being ultimately unsuccessful.¹³¹ It was found that the *Nchanga* decision, in so far as the statement that a conclusion relating to whether or not expenditure was capital or revenue could not ordinarily be reopened as a question of law, did not accurately reflect the position in relation to the enquiry.¹³² It was held that a more correct approach was that the issue pertaining to the classification of expenditure may often be a question of mixed fact and law, therefore reviewable by the Court.¹³³ In fact, it was found that later authorities were in support of the enquiry being one of law.¹³⁴ The reconciliation thus found that the question of law must be determined after having proper regard to the facts found by the Commissioner or court *a quo*.¹³⁵ Indeed, Ogilvie Thompson found that the remarks of Watermeyer in respect of the enquiry as to the categorisation of the expenditure did not preclude those findings from being ones of law.¹³⁶ Therefore, in the absence of intention, or other factual considerations being decisively relevant, where the question is limited to whether or not the expenditure is capital or revenue, the question will be decided as a matter of law.¹³⁷

When analysing the position in respect of expenditure incurred in the development of software the enquiry becomes more difficult in light of the lack of certainty associated with the taxation treatment of that expenditure. The relationship between the enquiry as to whether or not such findings are ones of fact or law and the position in relation to software is an important one because the uncertainty highlighted by the above discussion as to findings of fact and law will undoubtedly be issues to be dealt with in the enquiry surrounding the nature of expenditure incurred in the production of software. As is discussed in this thesis, the taxpayer's treatment of the expenditure incurred in the production of software, as well as the use to which that software is put, will often be ascertainable as a question of fact. The question as to whether or not the

¹³¹ 1965 2 All SA 547 (A) at 548-549.

¹³² 1965 2 All SA 547 (A) at 551, *Nchanga Consolidated Copper Mines Ltd v Commissioner of Taxes* 1962 1 SA 381 FC at 384.

¹³³ *Ibid* and Simon, J.A. 1952. **Simon's Income Tax**, 2ed. London: Butterworth & Co. Volume 1, 283 at para 412.

¹³⁴ *Rolls-Royce Ltd v Inland Revenue Commissioners* 1962 1 All ER 801 at 808 (Lord Guest) and 810 (Lord Morris).

¹³⁵ *Bradbury v United Glass Bottle Manufacturers Ltd* 38 TC 369.

¹³⁶ 1965 2 All SA 547 (A) at 552.

¹³⁷ 1965 2 All SA 547 (A) at 553, *Platt v Commissioner for Inland Revenue* 1922 AD 42, *Farmer v Cotton's Trustee*, 1915 AC 922, *Commissioner of Taxes v Hepker* 1933 AD 192.

software that is created as a result of the expenditure is of a revenue or capital nature may be entertained as a question of law in order to contribute to certainty in relation to the treatment of software, thereby dealing with the lack thereof which forms the basis of this thesis.

It has been held that the mere fact that the payment does not create a new asset or add to an existing asset is not determinative of that payment being a revenue expense.¹³⁸ In finding this, the learned judge went on to link the expenditure in respect of protecting a business' goodwill with a capital expense as, by its very nature, it affects the value of the business.¹³⁹ The means employed, it was found, has no bearing on the decision as to whether the expenditure was capital or revenue as the purpose and, indeed, the ultimate result, was to augment the income-earning structure and therefore was capital in nature.¹⁴⁰ What must be borne in mind, as discussed earlier, is the closeness of the connection between the expenditure in issue and the income-earning operations, the absence of a close connection being indicative of a causal link to the capital structure of the business.¹⁴¹ In the *Cadac Engineering Works* matter it was found that there must be a causal link between the expenditure so expended and the revenue earned so as to avoid the possibility of the expenditure being deemed to be capital in nature.¹⁴²

Commissioner for Inland Revenue v African Oxygen Limited concerned the regulation of the competition between two companies over a five-year period which was extendable, in the absence of notice, indefinitely.¹⁴³ A material term of the agreement was that Respondent was to make good all certified losses in respect of the arrangement.¹⁴⁴ Respondent sought to deduct these losses on the basis that the arrangement was entered into for the purpose of protecting a major portion of its income and, if possible, increasing the income and that the undertaking of the competitor pursuant to the agreement not to compete was not of a capital nature in

¹³⁸ 1965 2 All SA 547 (A) at 552 at 555, 7 AITR 346.

¹³⁹ *Associated Portland Cement Manufacturers Ltd v Inland Revenue Commissioners* 1946 1 All ER 68 at 71E.

¹⁴⁰ 1965 2 All SA 547 (A) at 556.

¹⁴¹ 1965 2 All SA 547 (A) at 556, *Port Elizabeth Electric Tramway Co. v Commissioner for Inland Revenue* 1936 CPD 241 at 246.

¹⁴² 1965 2 All SA 547 (A) at 557.

¹⁴³ 1963 1 SA 681 (A) at 686.

¹⁴⁴ 1963 1 SA 681 (A) at 686.

that it did not constitute an enduring benefit.¹⁴⁵ It was found that the agreement eliminating the competition essentially increased the Respondent's goodwill by protecting the Respondent's income-producing assets, and that the purpose of the agreement was to preserve that goodwill and possibly expand such prospects as it may have had as a result of the goodwill and was therefore capital.¹⁴⁶

More importantly, however, it was found that the enforceable right acquired by the respondent preventing its competitor from competing with it, in the context of its business, was in itself an asset, and that it derived its capital value by increasing the effectiveness of the assets already within the income-producing concern and that the determination of the extent of that advantage should be determined at the inception of the agreement and not after the agreement had run its course.¹⁴⁷ It was found that the meaning of 'enduring' was not that the benefit be interminable or defined as the entire course of the life of the business, but rather that the benefit should be found to be "of sufficient permanence and substance unquestionably to qualify the right by which it is ensured as an asset."¹⁴⁸ It is submitted that it is upon this basis that the enquiry as to whether or not the software is of a capital or revenue nature must proceed.

4.2.1.2 Enduring benefit in the electronic context.

The requirements in respect of establishing an enduring benefit have been further considered in *Commissioner for South African Revenue Service v I-Net Bridge (Pty) Ltd.*¹⁴⁹ Respondent in the matter had paid a license fee for the use of 'electronic content, data and information' with the payment being made over a five year period by way of the issue of shares and the creation of a loan account, and had also acquired software required to access the data and information.¹⁵⁰ The Respondent contended that the acquisition of the systems was not infrastructure, which could be utilised for other purposes, and, accordingly, that the costs associated therewith should be deductible.¹⁵¹ This is a useful authority in that it demonstrates not only the complexity in the application of taxation principles to software but also highlights the different

¹⁴⁵ 1963 1 SA 681 (A) at 686.

¹⁴⁶ 1963 1 SA 681 (A) at 688.

¹⁴⁷ 1963 1 SA 681 (A) at 688.

¹⁴⁸ 1963 1 SA 681 (A) at 689.

¹⁴⁹ 73 SATC 141.

¹⁵⁰ 73 SATC 141 at para 3.

¹⁵¹ 73 SATC 141 at para 5.

characteristics which may be apparent in a product which is collectively referred to as software.

What is relevant is that Appellant drew a distinction between the data feed required by Respondent and the system and code required to access that feed, the costs incurred in acquiring the feed being deductible and the latter two not and therefore contended that the court *a quo* had incorrectly found that no fixed asset had been acquired or created in respect of the system and code.¹⁵² Victor, J found that the modes of payment in terms of the contractual structuring of the arrangements could not, on their own, determine the nature of the transactions and that the substance thereof was to be considered over their form and that the license being the dominant subject of the transaction, the acquisition of the system and code would be of no practical value without the license.¹⁵³ In coming to this conclusion he relied on *City Link Melbourne v Federal Commissioner of Taxes*, where it was held that the transaction in that matter was primarily the acquisition of the rights of access and operation, with the associated infrastructure being necessary concomitants thereto.¹⁵⁴ In dismissing the enduring benefit test in this matter it was held that the Appellant had failed to lead sufficient evidence to justify a singular reliance on that test and therefore the import and context of the expenditure was to be analysed and that, in the absence of evidence to the contrary, the expenditure on the data feed was more closely related to the income-producing activities of the Respondent than to the acquisition of infrastructure.¹⁵⁵

The next authority in respect of the differentiation between capital and revenue and the enduring benefit test, which is of a similar nature in respect of the character of licensing, is *ITC 1798*.¹⁵⁶ The learned Judge, Waglay J, raised a number of pertinent issues. The first was that he differentiated the trademark in question from a fixed asset, in that a trademark is the application of one's mind and should be distinctive or capable of being distinguished from all other marks as the use of a trademark which, by definition, provides the user with an identity.¹⁵⁷ A fixed asset, on the other hand

¹⁵² 73 SATC 141 at para 11.

¹⁵³ 73 SATC 141 at paras 13 and 16.

¹⁵⁴ 257 ATR 316 (Federal Court of Australia Full Court).

¹⁵⁵ 73 SATC 141 at paras 19-20.

¹⁵⁶ 68 SATC 9.

¹⁵⁷ 68 SATC 9 at para 31.

need not be distinctive and, while it serves a purpose *vis a vis* the occupant it does not define the occupant's identity.¹⁵⁸

This differentiation is crucial in an analysis of software developed in-house, as software includes elements which are both tangible and intangible, essentially combining not only the characteristics of functionality, akin to an asset to which Waglay J refers, but also the intangible characteristics of a trademark and therefore, by inference also contributes a certain amount of structure and goodwill to the business that develops software.¹⁵⁹

The principles relating to the purpose of the expenditure were argued on behalf of the Respondent and therefore Waglay J was necessarily forced into a synthesis of the principles discussed above.¹⁶⁰ In dealing with those principles the learned judge sought to draw on the Australian decision of *Hallstrom Pty Ltd v FCT* where it is stated: "What is an outgoing of capital and what is an outgoing of revenue depends on what the expenditure is calculated to effect from a practical and business point of view, **rather than the juristic classification of the legal rights, if any, secured, employed or exhausted in the process.**"¹⁶¹ [emphasis added] The enquiry in Australia was subsequently refined in that, once it is clear that the taxpayer envisaged an advantage in the expenditure, the test was whether the advantage sought had the character of capital or income.¹⁶² This necessarily requires an understanding of the advantage enjoyed by the taxpayer and that the taxpayer's understanding demonstrates a conscious reconciliation with the nature of the advantage to be gained. The learned judge reaffirmed the principle that the mere fact that the expenditure is of a recurrent nature does not necessarily detract from it being of a capital nature.¹⁶³ He then went on to refer to a number of pertinent authorities which will now be discussed.

4.2.1.3 Enduring benefit: The degree of permanence

In *Robert Addie and Sons Collieries Ltd v Inland Revenue* it was asked whether the sums were expenditure laid out as part of the process of profit-earning or expenditures necessary for the acquisition of property or of rights of a **permanent character**, the

¹⁵⁸ 68 SATC 9 at para 31.

¹⁵⁹ 68 SATC 9 at para 32.

¹⁶⁰ *Commissioner for Inland Revenue v Genn & Co (Pty) Ltd* 1955 3 SA 293(A) *supra*.

¹⁶¹ 1946 3 AITR 436, 72 CLR 634 at 648.

¹⁶² *British Petroleum Australia Ltd v Federal Commissioner of Taxation* 14 ATD 1.

¹⁶³ 68 SATC 9 at para 59.

possession of which is a condition of carrying on the trade at all.¹⁶⁴[emphasis added] The problem with this enquiry is that the lifecycle of software is variable and therefore any benefit from the development of software can never be said to be permanent in the true sense. It has already been stated that the benefit should last “for a good number of years.”¹⁶⁵ This principle appears to have been put to rest by Waglay J where he stated that the mere fact that the benefit was conferred for a limited period, even though its future existence is unknown, cannot convert a capital payment to one of revenue.¹⁶⁶ In doing so he relied on the dictum in *CIR v VRD Investments (Pty) Ltd* where it was stated: “I cannot accept that the limited duration of a benefit flowing from a (*sic*) obviously capital expenditure would be sufficient on its own to convert, in effect, the expenditure to one which is not of a capital nature.”¹⁶⁷ Accordingly, the appeal against the Commissioner’s disallowing the deductions was dismissed on the basis that they were capital in nature.

Further, in respect of the enduring benefit enquiry are useful remarks found in *Commissioner of Taxes v Rhodesia Congo Border Timber Co. Ltd.*¹⁶⁸ Briggs FJ in that matter observed that he had not yet come across a matter where the application of the *Atherton* and *New State Areas*’ tests, fairly applied, had led to different conclusions.¹⁶⁹ It should be remembered that the test in the *New State Areas* matter was whether the expenditure establishes, adds to or improves the taxpayer’s income-earning structure, and is therefore capital in nature, or whether it is part of the cost of performing the income-earning operations, and is therefore revenue in nature.¹⁷⁰ The *Atherton* test is whether the expenditure brings into existence an asset or advantage for the enduring benefit of the taxpayer’s trade.¹⁷¹ It is submitted that the learned judge had not come across a matter where the application of the two tests had led to different results because the commercial transactions of old reflected the constraints of commerce at the time the tests were developed. The advent of e-commerce and the rise in importance and versatility of assets such as software have placed software and

¹⁶⁴ 8 TC 671, cited with approval in *Commissioner for Inland Revenue v Manganese Metal Co (Pty) Ltd* 1996 3 SA 591 at 605-606.

¹⁶⁵ *Anglo-Persian Oil Co Ltd v Dale* 1931 16 TC 253 at 262.

¹⁶⁶ 68 SATC 9 at para 52.

¹⁶⁷ 1993 4 SA 330 (C) at 340.

¹⁶⁸ 24 SATC 602.

¹⁶⁹ 24 SATC 602 at 611.

¹⁷⁰ *New State Areas Ltd v Commissioner for Inland Revenue* 1946 AD 610, 14 SATC 155.

¹⁷¹ *British Insulated & Helsby Cables v Atherton* 1926 AC 205.

similar assets into a category of their own in many respects and superseded, in many cases, the bounds of what may be considered ‘traditional’ commercial transactions. The learned Judge, in differing from the Judge *a quo*, reiterated that the mere fact that expenditure is recurrent does not necessarily characterise it as revenue expenditure.¹⁷² The converse must not be ignored, in that circumstances may exist where certain expenditure may be so frequently and necessarily incurred as to be a part of operating expenditure, but the recurring expenditure test should be treated with caution and afforded only as much weight as the circumstances allow.¹⁷³

Reference has been made to the Privy Council decision of *Commissioner of Taxes v Nchanga Consolidated Copper Mines Ltd.*¹⁷⁴ *In casu* the benefit obtained was confined to a period of less than twelve months. Radcliffe began his analogy with the distinction between fixed and floating capital and highlighted that regardless of that distinction, the classification in respect of the expenditure would ultimately have to be either to revenue or capital.¹⁷⁵ The crucial finding in the matter was the demarcation between the cost of creating, acquiring or enlarging the permanent structure of which the income is to be the produced and the cost of performing the income earning operations.¹⁷⁶ In referring to the ‘permanent structure’, Radcliffe highlighted that ‘permanent’ does not mean ‘perpetual’.¹⁷⁷ This is comforting in that allows for a flexible approach to the concept of ‘enduring benefit’, free from the rigidity of the ‘good number of years’ that the *Anglo-Oil* matter sought to saddle the test with.¹⁷⁸

4.3 OTHER TESTS DETERMINATIVE AS TO WHETHER OR NOT THE EXPENDITURE IS CAPITAL IN NATURE

While this thesis maintains that the most important test in respect of determining whether expenditure is capital or revenue in nature is the enduring benefit test it must not be forgotten that there are other tests which may be of assistance in the enquiry. These tests will be dealt with briefly here for the purpose of providing a

¹⁷² In doing so placing reliance on *H.J. Rorke Ltd v Inland Revenue Commissioners* 1960 3 All ER 359 and *Eastmans Ltd v Shaw*, 14 TC 218 and *Hyam v Commissioner of Inland Revenue* 14 TC 479.

¹⁷³ *Morant v Wheal Greville* 3 TC 298 at 302.

¹⁷⁴ 1964 All ER 208.

¹⁷⁵ 1964 1 All ER 208 at 212. See also *John Smith & Son v Moore* 1921 2 AC 13 at 19-20.

¹⁷⁶ 1964 1 All ER 208 at 212.

¹⁷⁷ 1964 1 All ER 208 at 212.

¹⁷⁸ *Anglo-Persian Oil Co Ltd v Dale* 1931 16 TC 253 at 262.

comprehensive framework within which the expenditure incurred in the production of software can be evaluated.

The first of these derives its origin from the Judgment of Watermeyer CJ in *New State Areas Ltd v CIR* wherein he differentiated between expenditure incurred in the procurement of services or work or activities and the acquisition by the taxpayer of the means of production in the form of property, plant and tools with the earlier being revenue in nature and the latter capital in nature.¹⁷⁹ This led him to concluding that the true nature of each transaction must be inquired into in order to determine whether the expenditure attached to it is capital or revenue, with such nature being a matter of fact having regard to the purpose of the expenditure and, where the purpose is the procurement of the earlier of the above two distinctions, that purpose would be revenue in nature, and, if in the acquisition of assets described in the latter, same would be capital in nature.¹⁸⁰ In building upon this test it has been held that the court has to assess the closeness of the connection between the expenditure and the income-earning operations, having regard both to the purpose of the expenditure and to what it actually effects.¹⁸¹

The second of the tests developed was laid out by Innes CJ in *CIR v George Forest Timber Co Ltd* wherein he stated that money spent in creating or acquiring an income-producing concern must be capital expenditure as it is invested to yield future profit where, while the outlay does not recur the income does and, further, that there is a great difference between creating or acquiring a source of profit and the money spent in working it, with the earlier being capital expenditure and the latter being revenue in nature.¹⁸²

These principles found application in the matter of *Nchanga Consolidated Copper Mines Ltd v COT* wherein it was found that a payment by one company to an associated company in consideration for the cessation of production by the associated company for one year was not to be of a capital nature as the Court held that the

¹⁷⁹ 1946 AD 610, 14 SATC 155 at 163-4.

¹⁸⁰ 1946 AD 610, 14 SATC 155 at 170.

¹⁸¹ *CIR v Genn & Co (Pty) Ltd* 1955 3 SA 293 (A), 20 SATC 113 at 121.

¹⁸² 1924 AD 516 at 526-7.

expenditure was not made as part of the cost of the income-earning structure but part of the income-earning operations.¹⁸³

A test which was developed in the United Kingdom by Lord President Dunedin in the matter of *Vallambrosa Rubber Co v Farmer* was whether the expenditure was incurred “*once and for all*” or whether it was expenditure which was likely to recur in that expenditure of a capital nature would occur once and for all, whereas expenditure of a revenue nature would recur every year.¹⁸⁴ This test is not, however, infallible as there may be revenue expenditure which occurs once and for all and there may be capital expenditure which is recurring.

4.4 CONCLUSION

In chapter three the concept of capital versus revenue was discussed in relation to the receipts received by businesses as well as payments made. This created the foundation for the discussion in this chapter. The purpose of this chapter was to analyse the authorities and tests laid out therein in order to understand the basis on which the capital or revenue nature of expenditure incurred in the in-house development of software should be evaluated.

The dominant test is whether or not the software to which the expenditure relates is of such a nature as to bring into existence an enduring benefit. Where the benefit is of a sufficiently long period as to be considered enduring, it can be said that the software, and accordingly the expenditure outlaid in the production thereof, is capital in nature. This may be problematic when regard is had to the fact that the useful lifecycle of software may be very short. In that case the expenditure incurred in the production of software may be said to be revenue in nature.

It was highlighted in chapter one that the disposal of proprietary rights in software may take place in a number of different ways. It is important, therefore, to note that the manner in which software is to be dealt with will play an important role in applying the tests discussed in this chapter.

¹⁸³ 1962 1 SA 381 (FC), 24 SATC 469, on Appeal as *COT v N'Changa Consolidated Copper Mines Ltd* 1964 AC 947, 26 SATC 37.

¹⁸⁴ 1910 SC 519 at 524 incorporated into South African Law in *Rhodesia Railways Ltd & Others v COT* 1925 AD 438, 1 SATC 133 at 147.

This chapter has provided an analysis of the various authorities relevant to the formulation of the enduring benefit test. Apparent in all of these cases is that the true character of the transaction must be determined. In doing so regard is to be had to the effect that the transaction has on the taxpayer's trade.

A synthesis of the authorities considered highlights a number of principles. The first is that expressed by Lord Cave in *British Insulated & Helsby Cables v Atherton* that where the expenditure is made with a view to bringing into existence an asset or advantage for the enduring benefit of a trade that such expenditure is of a capital nature. The second principle is that the degree of permanence must be assessed in the context of the circumstances and in relation to the benefit the taxpayer enjoys, as was found in *CIR v Manganese Metal Company*. The third is that, in determining the nature of the expenditure, regard must be had to the substance of that expenditure as opposed to merely considering the form in which it is treated, as found in *New State Areas v CIR*, and that the true nature of the transaction must be enquired into, as found in *SIR v Cadac Engineering Works (Pty) Ltd*. In applying these principles in the electronic context, the court will have regard to the primary nature of the transaction after having considered all the relevant factors, as was demonstrated in *C:SARS v I-Net Bridge (Pty) Ltd*. Accordingly, the position in the context of the South African taxation framework appears to be that a full enquiry into the nature of the software which is created, the purpose for which it is used, and the benefit which is derived from the creation of the software will all need to be considered before a finding will be made as to whether or not the software, and therefore the costs incurred in the production thereof, will be considered capital or revenue in nature. It is submitted that, in light of the different types of and means of application of software, even this threefold test does not create sufficient certainty in relation to the taxation treatment of software and the costs incurred in the development thereof.

There are a number of other tests available in the determination as to whether or not expenditure incurred is of a revenue or capital nature. These tests include the nature test of Watermeyer CJ, which enquires as to the purpose for which the expenditure was incurred; the acquisition test of Innes CJ, which enquires as to what the expenditure was utilised to acquire; and the "once and for all" test of Lord President Dunedin which examines the recurrence of the expenditure incurred. While these may be of assistance it is the enduring benefit test which this thesis presents as the

primarily determinative test in respect of expenditure incurred in the development of software.

It is the uncertainty as to the benefit which is derived in the creation of software and the treatment of software that requires clarification with regard to long established principles that govern the field of accounting for assets which are created. This is done by means of analysing the taxpayer's accounting treatment of the software in order to gauge the taxpayer's view of the nature of the recognition of the software and the intellectual capital associated therewith in order to ascertain whether the software is capital or revenue in nature. The effect of recognition as an asset for accounting purposes was highlighted in ABSA's contribution in chapter two and should be more fully explored. Accordingly, the following chapter examines the accounting treatment of intangible assets.

CHAPTER FIVE: ACCOUNTING TREATMENT OF INTANGIBLE ASSETS AND THE ANALOGY TO GOODWILL

5.1 INTRODUCTION

In chapter two it was stated that certain industry stakeholders utilise accepted accounting standards to determine the taxation treatment of any software they create. It must be understood that the principles of taxation and those of accounting are independent of each other in that the determination of liability for taxation is governed by principles entirely different from those of accounting. However, it is important to realise that many businesses will make use of accounting principles in order to classify certain assets for tax purposes, a good example of which is goodwill. Therefore, when the taxpayer's intention in respect of certain assets is being gauged regard may be had to the manner in which software is accounted for in the taxpayer's accounting records. Furthermore, SARS has recognized that, in certain circumstances, the taxpayer's accounting treatment of its expenditure may be a factor which is taken into consideration in the determination of certain taxation characteristics of that asset, for example, the asset's expected life.¹⁸⁵

This chapter addresses the fifth goal of the research in that it deals with the accounting treatment of intangibles whose character may be analogous to software. In doing so the chapter has regard to the accounting treatment of goodwill and intangible assets as dealt with by International Accounting Standard 38 (IAS 38).

The objective of IAS 38 is to deal with the accounting treatment for intangible assets that are not dealt with in any other Standard.¹⁸⁶ This standard requires an entity to recognise an intangible asset if, and only if, specified criteria are met. It defines an intangible asset as an identifiable non-monetary asset without physical substance. The recognition of an intangible asset, in terms of IAS 38, is subject to the probability that the expected future economic benefits that are attributable to the asset will flow to the entity and that the cost of the asset can be measured reliably. The standard further provides that no internally generated goodwill shall be recognised as an intangible asset, which may militate against the recognition of any intangible asset created by

¹⁸⁵ South African Revenue Services, **Interpretation Note 47**, 11 November 2009 at page 14.

¹⁸⁶ IFRS Foundation. 2012. **Technical Summary: IAS 38 Intangible Assets**. [On line]. Available at: <http://www.ifrs.org/IFRSs/Documents/English%20IAS%20and%20IFRS%20PDFs%202012/IAS%2038.pdf>. [Accessed 24 December 2012]

internally developed software. In order for such an asset to be recognised in terms of IAS 38 it must be demonstrated that completing the asset, so that it is available for use or sale, is technically feasible, that the entity has an intention to either use or sell the asset combined with its ability to do so, that the intangible asset will generate future economic benefit, and that there is sufficient availability of adequate technological resources to complete the development of the asset and the ability to measure reliably the expenditure attributable to the intangible asset.

5.2 VALUATION OF INTANGIBLE ASSETS

In a Binding General Ruling, SARS indicates write-off periods in respect of certain assets which are acceptable to SARS.¹⁸⁷ The Ruling indicates that the costs associated with purchased software may be written off over three years in respect of mainframe software and computer software relating to personal computers may be written off over two years. In essence these periods bear almost no relationship to the periods associated with the “enduring benefit” test and IAS 38 in that they are so short that it is unlikely that software could be classified as a capital asset. In taking this approach it would appear that there is a contradiction in this treatment due to the fact that SARS, while recognising certain software as a capital asset on the basis that the write-off periods in Interpretation Note 47 only apply to capital assets, then stipulates write-off periods that are so short as to weaken the position of such capitalisation. This highlights the uncertainty around the taxation treatment of software and, accordingly, expenditure incurred in respect of the development of software.

Having regard to the reconciliation of the write-off periods prescribed by Binding General Ruling No. 7 and the tests discussed in the earlier chapter it is important to understand the accounting principles behind the valuation of intangible assets in order to ascertain what approach will be used in calculating the amount to be dealt with when claiming deductions in terms of the Research and Development provisions of section 11D of the Income Tax Act. The accounting standards require that where an asset comes into existence it must be recognised and valued. If such a benefit is enduring, as discussed previously in the thesis, there exists the possibility that the cost of developing, and therefore the value, of that software will be relatively large and

¹⁸⁷ South African Revenue Service. 2012. **Binding General Ruling (Income Tax): No. 7. Section 11(e) Wear-and-tear or depreciation allowance.** [On line]. Available: <http://www.sars.gov.za/home.asp?pid=55888>. [Accessed 15 November 2012]

will therefore lead to a difficulty in seeking to deduct such costs as revenue expenditure. In light of the accounting principle which requires that if an asset comes into existence it must be recognised it is important to ensure that if software does create an intangible asset that it is recognised as such and it is imperative that the asset be valued in accordance with the principles enunciated in International Accounting Standard 38 (“IAS 38”), developed initially by the International Accounting Standards Committee, and later revised in March 2004 by the International Accounting Standards Board which replaced the committee, replacing the previous 1998 standard.¹⁸⁸ IAS 38 makes provision for two alternatives for valuing an intangible asset. The first is the cost model, which takes into account the cost of producing the asset less any accumulated amortisation and accumulated impairment losses.¹⁸⁹ The second is the revaluation model, which measures the fair value of the asset at the date of revaluation, less any subsequent accumulated amortisation and accumulated impairment losses.¹⁹⁰ Implicit in this method is that, as highlighted by Wilmot in the interview discussed in chapter two, valuing software is often very difficult if the software is not sold in its entirety. This requires that the taxpayer is either able to identify the aggregate of the expenditure incurred in the creation of the software or to attach a fairly accurate value that the software could realise if sold at the date of valuation. Both of these would involve a certain amount of speculation. Constraints associated with the revaluation method, specifically regarding the evaluation of the asset’s position in an active market, make this method particularly onerous and potentially prohibitive from a cost perspective, thus making the cost model preferable.¹⁹¹

In arriving at these valuations, regard must be had to whether an asset has a finite or infinite useful life.¹⁹² In light of the write-off periods set out in Binding General Ruling No. 7 in respect of software, a debate in this respect may appear somewhat academic in that the write-off periods are relatively short. The assessment in respect

¹⁸⁸ IFRS Foundation. 2011. **A guide through International Financial Reporting Standards**. [Online]. Available at: [http://lexisnexis.ru.ac.za/nxt/gateway.dll/0b/ae4nb/0wwlc/2wwlc/cxwlc/9xwlc?f=templates\\$fn=default.htm\\$vid=mylnb:10.1048/enu](http://lexisnexis.ru.ac.za/nxt/gateway.dll/0b/ae4nb/0wwlc/2wwlc/cxwlc/9xwlc?f=templates$fn=default.htm$vid=mylnb:10.1048/enu). [Accessed 19th August 2012]

¹⁸⁹ Paragraphs 72-87 of IAS 38.

¹⁹⁰ Paragraphs 75-87 of IAS 38.

¹⁹¹ Service, C.L. 2011. **Gripping GAAP 2011**. Pietermaritzburg: LexisNexis at 373.

¹⁹² Service, C.L. 2011. **Gripping GAAP 2011**. Pietermaritzburg: LexisNexis at 374.

of a finite or infinite useful life is, however, relevant in that assets with finite useful lives are amortised whereas those with infinite useful lives are not.¹⁹³

Amortisation occurs with regard to five factors, namely, the residual value of the asset, or the amount which may be recovered in respect of the asset at the end of its useful life, the period of amortisation (the period over which the asset will be depreciated), the method of amortisation and the base cost of the asset.¹⁹⁴ The residual value on intangible assets is zero, in the absence of a commitment to purchase the remnants at the end of its useful life or an active market with the residual value being reasonably determinable within the context of that market.¹⁹⁵ It is submitted that, in respect of software, the conditions which may substantiate a value are so uncertain as to even warrant consideration, and the residual value must be zero.

The period of amortisation begins from the date when the asset was available for use, and not from when it was first utilised and continues until the asset ceases to be used or is re-classified as a non-current asset held for sale, whichever is the earlier.¹⁹⁶ The expected economic useful life is the number of years that it will be used. This, in relation to software, must take into account technological changes, such as the rate of innovation which may have a bearing on the asset's useful life, as well as any limitation on the legal rights which may diminish the actual value of the asset. For example certain licensing arrangements may limit the extent to which the developer may re-sell or license the software, thereby effectively capping the value of the software at the license fee received from the sole licensee.¹⁹⁷

There are three methods of amortisation, the straight line method, where a fixed amount is deducted from the value of the asset in each year of its useful life, the reducing balance method, where a percentage of the current year's value is deducted from the value of the asset and the unit of production method, where the asset's value is divided by the number of units it may produce and its balance reduced accordingly.¹⁹⁸

¹⁹³ Service, C.L. 2011. **Gripping GAAP 2011**. Pietermaritzburg: LexisNexis at 374.

¹⁹⁴ Service, C.L. 2011. **Gripping GAAP 2011**. Pietermaritzburg: LexisNexis at 375.

¹⁹⁵ Service, C.L. 2011. **Gripping GAAP 2011**. Pietermaritzburg: LexisNexis at 375.

¹⁹⁶ Service, C.L. 2011. **Gripping GAAP 2011**. Pietermaritzburg: LexisNexis at 375.

¹⁹⁷ Service, C.L. 2011. **Gripping GAAP 2011**. Pietermaritzburg: LexisNexis at 376.

¹⁹⁸ Service, C.L. 2011. **Gripping GAAP 2011**. Pietermaritzburg: LexisNexis at 376.

There is a two-fold relevance to the inclusion of a discussion of the accounting standards in the present thesis. The first is that the application of the relevant accounting standards opens the possibility of software being characterised as a capital asset. In doing so the question is raised as to why section 11D of the South African Act excludes the development of in-house software from the allowances provided in the section. The second is that if, through the application of the relevant accounting standards, the taxpayer recognises the software it has developed as a capital asset and the taxpayer is unsuccessful in obtaining the 150 per cent allowance in terms of section 11D, having declared the asset to be capital in nature, the taxpayer would, in all likelihood, then be unsuccessful in any attempt to deduct the costs in developing the software under section 11(a) as the taxpayer will already have declared the software to be capital in nature and section 11(a) disallows any deductions which may be capital in nature. It appears from section 11D that the 100 per cent deduction allowable in terms thereof in respect of research and development must be considered to be a capital asset otherwise there would be no purpose to the section in that the 100 per cent could simply be deducted in terms of section 11(a). The 150 per cent deduction requires an explicit declaration, as opposed to the implicit assumption in respect of the 100 per cent with the result that if the taxpayer's application in terms of section 11D is disallowed, for example if the research and development does not meet the novelty requirement, the taxpayer will either explicitly or implicitly be barred from utilising the provisions of section 11(a) in that it will have declared the expenditure to be capital in nature. Accordingly it is vital that regard is had to the accounting treatment of software for the purposes of determining the true nature and deductibility, or otherwise, thereof. In doing so analogies are drawn with the accounting treatment of assets that may be similar in nature to software, such as goodwill.

The point of departure is to examine the treatment of goodwill in terms of accounting standards. The reason for this is that in-house software may lead to efficiencies in a firm's business processes and the inherent value of the software then ceases to lie with the software code itself but is replaced by the value that is placed on the improved efficiencies in the business processes. Such values may be analogous to the value associated with goodwill. Therefore, at the ultimate sale of the business, the value of the efficiencies created by the internal software can no longer be identified

and attributed directly to the various versions of software but, rather, represent a facet of the inherent value of the business. Accordingly, that inherent value is capable of being likened to goodwill and therefore it is imperative that the tax and accounting implications surrounding goodwill are discussed.

5.3 GOODWILL: AN ENDURING BENEFIT?

Goodwill must be considered in relation to the enduring benefit enquiry discussed in chapter four. The first question to be asked in this respect is how the value of in-house software, in so far as it may be considered to be intellectual property, which is proprietary to the firm, would be included in a valuation of the business when the business is disposed of? It is submitted that there are two alternatives: a capital asset or goodwill. Such capital asset may be an intangible asset without physical substance.¹⁹⁹

ITC 1210 concerned the unique situation of a director of a firm travelling overseas to attend a programme at the State University of New York.²⁰⁰ The relevance of this case to the present research lies in the relationship between the outcome of the director attending the programme, the costs incurred in attending the programme and the Court's finding in relation to its effect on the goodwill value of the firm. It should be borne in mind that this decision was prior to the amendment of section 23(g) and therefore decided in terms of the repealed provision which prohibited the deduction of moneys not "wholly or exclusively" laid out or expended for the purposes of trade. As the expenditure was found to be capital in nature this was not considered.²⁰¹ Reliance was placed on the dictum of Atkinson J in *Mann Crossman and Paulin Ltd v Compton* where it was stated that when expenditure is incurred in respect of an enduring asset in order that profit may be made, such expenditure is capital, and when expenditure is incurred in the making of profit such expenditure would normally be revenue.²⁰² In *ITC 1210*, Phillips AJ found that the attendance of the Director at the programme was so that the Director could demonstrate how advanced and effective appellant's techniques were, evoking admiration and appreciation in Johannesburg, the ultimate effect of which would be the increased attendance at the Director's courses and a

¹⁹⁹IAS 38, paragraphs 9 and 10; Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 607

²⁰⁰ 1973 36 SATC 99 (T).

²⁰¹ 36 SATC 99 at 103.

²⁰² 36 SATC 99 at 103.

resultant increase in profits.²⁰³ The learned judge went further to find that there can be no difference between an individual and a company where, of course, the shareholders are *ad idem* regarding their intention in respect of the expenditure.²⁰⁴ Accordingly, it was found that the overseas trip contributed to the goodwill of the company and was therefore capital in nature.

Goodwill exists as an agglomeration of various factors which, combined, create an intangible value. In the case of software, the software itself could be said to create something analogous to goodwill in the long term. The enquiry as to the relationship between the value which software adds to a business and goodwill must be expressed as whether the value derived from the licensing of the software, in that software may be created and then licensed for use to many different users, can be considered sufficiently close in character to goodwill so as to be considered goodwill in nature. The term “goodwill” was defined in *Receiver of Revenue v Cavanagh*.²⁰⁵ Fortuitously, that matter concerned the relationship between goodwill and a liquor license.²⁰⁶ Innes ACJ found that the connection between the two, in so far as a licensed house is concerned, is so close that it would be a rarity to deal with the license and the goodwill, created by having that license, separately.²⁰⁷

An interjection is necessary here to make a brief comparison. In so far as Innes ACJ was referring to the relationship between the license of a premises and its value in goodwill and the inseparability of the two in valuing the concern, it is submitted that where a company has tailored custom software to meet its needs in respect of the conduct of its business and this has the effect of increasing the value to its clients, and where such software has been integrated to the extent that its use becomes an integral part of the conduct of a business’ activities, then it must be valued as either a long term asset or goodwill. It must be borne in mind that the generic referral to software takes into account that there may be a number of different changes to, or iterations of the underlying software which may have been added to the initial installation and the release or addition of such iterations would therefore supplement the existing capital ‘asset’ base.

²⁰³ 36 SATC 99 at 104.

²⁰⁴ 36 SATC 99 at 104. See also *ITC 825 21 SATC 189*.

²⁰⁵ 1912 AD 459.

²⁰⁶ 1912 AD 459 at 465.

²⁰⁷ 1912 AD 459 at 465.

The term “goodwill” generally denotes the benefit arising from connections and reputation; and its value is what can be obtained for the ability to keep that reputation and improve it.²⁰⁸ The value of goodwill can, however, only be determined accurately when the business is disposed of.²⁰⁹ This is not to say that there is no value in the goodwill at any other stage but, rather, that this part of the discussion focuses on the analysis of the value of goodwill at the time of disposal of the asset, or business.

The above discussion could be construed as somewhat confused. It is obvious that software is not, in fact, goodwill and the argument above does not intend to suggest that it is but rather that its value is analogous. What does flow from the discussion is that the financial benefit, which may ultimately flow from the development of in-house software, may be likened to goodwill in that its character is closely related thereto. It is imperative that it be understood that, where no direct valuation of software is accounted for, yet the software makes a large a contribution to the functioning and efficiency of the business, the only reflection of such software’s value will be in the value of the goodwill of the business. Accordingly, it is imperative that software developed in-house, which contributes to the value of the business, is recognised, demarcated and accurately valued in order to identify the contribution which it makes to the business’ overall value. In light of the importance of this valuation a discussion on the method of valuation of intangible assets is warranted and will be discussed below.

5.4 INTERNATIONAL ACCOUNTING STANDARDS AND INTANGIBLE ASSETS

The reason for the submission that software does not fall into the definition of an intangible asset, but rather may create a similar type of asset to goodwill, arises from the accounting treatment of intangible assets which, in order to be distinguished from goodwill, must be individually identifiable.²¹⁰ The application of Generally Accepted Accounting Practice is imperative in the determination of the accounting treatment of

²⁰⁸Banks, R. I. 2010. **Lindley and Banks on Partnership**, 19 ed. United Kingdom: Sweet and Maxwell at 379, 529 and 533.

²⁰⁹ 1912 AD 459 at 465.

²¹⁰IAS 38 at paragraphs 11 and 12, Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 608.

intangible assets such as software.²¹¹ The objectives of IAS 38, which deals with the treatment of intangible assets, are to stipulate the criteria to be met by assets in order to qualify as recognisable intangible assets, to indicate how to measure the carrying amount of intangible assets and to specify the disclosure requirements with regard to intangible assets.²¹² In order to categorise software as a capital asset, it would have to comply with these criteria.

An intangible asset is one which is an identifiable non-monetary asset without physical substance.²¹³ It has been highlighted that this definition is not exhaustive in that it has regard only to the nature of the asset and not the purpose for which it is held.²¹⁴

In order for an intangible asset to be identifiable, the first criterion in differentiating it from goodwill is that such asset must be separable from the entity within which it emanates.²¹⁵ In respect of software this criterion is met in that the company, which develops it, is able to both sell it, by surrendering the rights in the software completely in return for a consideration, or license it, by granting customers the right to utilise the software for a period in return for a consideration. Secondly, in respect of the ability to identify the asset, it must arise from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights or obligations.²¹⁶ The contractual rights arising in respect of software relate to the fact that the copyright which subsists in the code of such software vests with the entity which created it, with such copyright allowing the creator the option of protecting it from infringement without requiring that the right to protect that copyright be registered. It should be noted that the two sub-criteria relating to the identifiability requirement are not both prerequisites for the fulfillment of that

²¹¹ Emile Burger, Chief Operating Officer, support ABSA Bank. E-Mail response to specific questions, 15th August 2012.

²¹² IAS 38 at paragraph 18 read with paragraphs 8-17 and paragraphs 21 to 23; Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 607.

²¹³ IAS 38 at paragraph 8; Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 608.

²¹⁴ Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 608.

²¹⁵ IAS 38 at paragraph 12(a); Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 608.

²¹⁶ IAS 38 at paragraph 12(b); Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 608.

requirement as the presence of just one of them may be sufficient to satisfy that requirement.²¹⁷

The second element in respect of the definition of intangible assets is that the asset must be non-monetary. The most appropriate analysis of this requirement is by contrasting it to a monetary asset in that monetary assets are either held in bank accounts or assets to be received in fixed or determinable amounts of money.²¹⁸ As such, the sale of software, although open to relatively determinative valuations, does not possess the certainty of value which monetary assets may have. An example of this is the valuation of the software platform behind the social networking site *Facebook*. While it may represent a value to the company itself, it holds no independent and certain value outside of that sphere and is, accordingly, non-monetary and falls within the scope of an intangible asset in so far as the requirements already discussed are concerned.

Having established that software may create an asset which is intangible in nature it is necessary to further ensure that what has been created is, in fact, an asset. An asset has been defined as a resource controlled by an entity which has either created or purchased it, from which future economic benefits are expected to flow to the entity.²¹⁹ It is clear from this definition that there are two primary elements. The first is that of economic benefits being in favour of the entity which exercises control over the asset. These benefits have been defined as either the inflow of revenue or the reduction in expenses.²²⁰ Economic benefits may be established by means of utilising reasonable and supportable assumptions that represent management's best estimate of the economic conditions over the asset's useful life.²²¹ Such benefits are, obviously, limited to the extent to which the entity is able to control the intangible, giving rise to the second element in respect of determining whether or not the intangible is, indeed,

²¹⁷IAS 38 at paragraph 12; Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 609.

²¹⁸IAS 38 at paragraph 8; Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 609.

²¹⁹IAS 38 at paragraph 21(a); Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 609.

²²⁰ Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 610.

²²¹IAS 38 at paragraphs 13-16; Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 610.

an asset. Such control presents the next logical element in respect of satisfying the test as to whether or not the intangible is an asset.

The most persuasive manner in which an entity is able to exert control is by means of the existence of legal rights enjoyed by the entity to the intangible and the extent to which the entity is able to enforce these rights, such rights in the context of software being intellectual property rights.²²² In order to do so there must be a basis upon which the entity will proceed to enforce the rights. Again, this appreciation of the fact that internal use software, which results in the reduction of expenses, may create a benefit is present in this context but apparently absent in section 11D which excludes internal business processes.²²³ It is submitted that, where the correct copyrighting mechanisms are put in place by an entity that develops software, those mechanisms will provide a basis to enforce the rights. Accordingly, the entity will be able to control such intangible assets to the exclusion of unwarranted infringements, thereby satisfying the control aspect forming part of the definition of an asset. In light of the fact that copyright subsists in a work without registration the entity will also have a right to protect its work, and therefore to recognise the creation as a capital asset, without the need to register it.

The third requirement in respect of the recognition of an intangible asset is that of the measurement of the cost of the asset, with such measurement to be effected reliably. As the subject of this thesis is the internal generation of intangible assets, the considerations pertaining to the acquisition of assets are not relevant in this enquiry and the valuation concerns have been dealt with in the preceding section.

5.5 THE RELATIONSHIP BETWEEN INTERNATIONAL ACCOUNTING STANDARDS AND THE RESEARCH AND DEVELOPMENT TAXATION INCENTIVE

IAS 38 allows for a differentiation between a research phase²²⁴ and a development phase.²²⁵ The research phase represents the investigation undertaken with the prospect

²²² Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 609.

²²³ Section 11D(5) of Act 58 of 1962.

²²⁴ Section 11D(5) of Act 58 of 1962.

²²⁴ Paragraphs 54-56 of IAS 38.

²²⁵ Paragraphs 57-62 of IAS 38.

of gaining new scientific or technical knowledge and understanding.²²⁶ This expenditure will not *per se* result in an intangible asset capable of generating future economic benefits and, accordingly, expenses incurred in the research phase should be recognised and dealt with as operating expenditure when they are incurred.²²⁷ In so far as this phase is concerned, in relation to section 11D of the Income Tax Act, there is no certainty as to whether or not the research will result in an asset at all. Therefore it may be problematic in so far as a developer is required to decide whether the expenditure is capital or revenue in nature.

The second phase provided for by IAS 38 is the development phase, or the application of the research findings and other knowledge to plan or design for the production of new or substantially improved processes, systems or services prior to the start of commercial production or use.²²⁸ The paragraph appears to focus on the “pre-production” phase as opposed to the actual commercial production or use of the intangible. A practical approach must be taken to the interpretation of this paragraph when referring to software as, by definition, there can be no production of an intangible asset and the phase specifically in relation to the production of software must refer to the stage immediately prior to the use or dissemination of the intellectual property, which is the intangible asset. However, such use and dissemination is only possible where an asset has already been created. Therefore, the asset must come into being during the development phase, a necessary concomitant which IAS 38 accepts.²²⁹ However, recognition in terms of IAS 38 will only be afforded the asset where certain criteria are met.²³⁰ Accordingly it is submitted that, in respect of software, there exists the possibility that the asset actually comes into existence in the pre-production phase, on the basis that the code is finalised during such stage in order that it may be tested and intellectual property factually comes into existence during this phase. This must be differentiated from scenarios such as brand values which only come into existence as an asset after the development stage.

²²⁶ IAS 38 at paragraphs 54-56; Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 616.

²²⁷ IAS 38 at paragraph 54; Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 616.

²²⁸ IAS 38 at paragraphs 57-62; Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 616.

²²⁹ Paragraph 58 of IAS 38.

²³⁰ Paragraph 57 of IAS 38.

The first of these criteria is that the firm must demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale. This will mean that the company wishing to have the intangible recognised will be required to make a case not only in respect of the intangible's existence and availability for use, but also for its integration in the business sphere.²³¹ Secondly, the firm will be required to indicate that it has the ability to effect such integration.²³²

Thirdly, the firm must demonstrate how the intangible will generate future economic benefits in respect of either its marketability or a demand for the intangible, or its internal usefulness in respect of increasing efficiency within the firm.²³³ This may be done through the application of IAS 36, which tests assets for any impairment which may potentially have an impact upon the value of the asset, including *inter alia* the measurement of the recoverable amount in respect of the asset, and the identification of a cash-generating unit to which the asset may belong.²³⁴ The firm must also demonstrate the availability of adequate technical, financial and other resources to complete the development, and to use or sell the intangible asset.²³⁵ Accordingly a prospective future revenue stream or benefit must be present which the asset will create for the company in order for the asset to be recognisable.

Finally, and possibly the most problematic aspect in relation to the development of software, is the firm's ability to reliably measure the expenditure attributable to the intangible asset during its development.²³⁶ This arises in that, where human capital is employed in the creation of various software assets, it is often difficult to apportion the cost of such expenditure in relation to specific projects. While it is generally accepted that the cost of an internally generated asset is the sum of all the expenditure incurred in respect of the asset from the date when the asset meets the recognition criteria, it should be noted that any expenditure prior to that is to be treated as revenue expenditure for accounting purposes.²³⁷ The development expenditure may include materials and services utilised, employee benefit costs relating to the employees

²³¹IAS 38 at paragraph 57(a) & (b).

²³²IAS 38 at paragraph 57 (c).

²³³IAS 38 at paragraph 57(d).

²³⁴ Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 572.

²³⁵IAS 38 at paragraph 57(e).

²³⁶IAS 38 at paragraph 57(f).

²³⁷IAS 38 at paragraphs 65-67; Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 617.

involved in the asset generation, legal costs and the amortisation of patents and licenses utilised in the asset generation.²³⁸

5.6 CONCLUSION

The brief excursus of the accounting standards in this chapter has highlighted the importance of such standards in the software industry and lent credence to the weight which they are afforded by some of the industry stakeholders, as pointed out in chapter two. The first of these standards is the methods prescribed for valuing software as an intangible asset and the apparent absence of any correlation between the International Accounting Standards and the write-off periods prescribed by the Income Tax Act notwithstanding the fact that the two standards may, in effect, adopt the same treatment of software in this regard.

The chapter introduced IAS 38, the accounting standard applicable to intangible assets and therefore software as highlighted by some of the industry stakeholders in chapter two. The chapter then proceeded to lay the foundation for a comparison between goodwill and software by analysing the nature of goodwill in the context of taxation and the various contexts in which goodwill has been likened to other assets which have characteristics similar to goodwill. The analysis between software and goodwill is then drawn by having regard to the measuring of the possible intangible asset which software may create against the requirements for such an asset as set out in IAS 38. Finally, the chapter analysed the relationship between International Accounting Standards and the research and development taxation incentive.

The possibility that there may be two different valuation periods applicable to the same asset, and the potential discrepancy created thereby, highlighted by the difficulty in valuing software as an asset, leads to the conclusion that it is safe to draw parallels between software and goodwill as they both represent valuation difficulties of a similar nature. In doing so software may be said to take on an almost capital nature through its intrinsic value having an enduring benefit which is in the nature of capital as opposed to revenue.

²³⁸ Pretorius, D., Venter, E., von Well, R., Wingard, C. 2011. **GAAP Handbook 2011**. Durban: LexisNexis at 617.

In contrast to the relatively short useful life which is attributable to software discussed in the previous chapter, which would ordinarily render software, and the expenditure incurred in the production thereof, revenue in nature, the application of these standards seem to allow the classification and treatment of software for internal use as capital in the form of an intangible asset.

It is this potential classification that creates the possibility of a discrepancy between the accounting treatment of software, in the form of IAS 38, and the taxation treatment, in the form of section 11(a) and 11D of the Income Tax Act. Accordingly, it falls to consider these sections as well as well as similar taxation treatment of software in other jurisdictions in order to gain a perspective on the way in which other jurisdictions have dealt with software within the sphere of taxation. This is undertaken in the following chapter.

CHAPTER SIX: DEDUCTIBILITY OF DEVELOPMENT COSTS AND THE RESEARCH AND DEVELOPMENT INCENTIVE: A SOUTH AFRICAN AND AMERICAN PERSPECTIVE

6.1 INTRODUCTION

In order to truly understand the nature of research and development in the context of software, it must be contextualised from an international perspective, with the various research and development incentives and taxation climates being analysed in order to present a backdrop to the rationale which should have been present in the South African legislature's considerations when formulating section 11D in the Income Tax Act. It is submitted that had an analysis such as this been undertaken prior to the introduction of the section 11D, the legislation would have been more specific in taking software into consideration as being one of the most important aspects of modern commerce. The focus in this chapter will be on the United States of America ("the USA") where software has, at least, been considered and provided for specifically in the relevant tax legislation. While the primary focus of the present thesis is on the capital or revenue nature of software it must be borne in mind that the most convenient mechanism for analysing this distinction in its true context is by examining the treatment of software from the point of view of research and development tax incentives as these incentives often provide an additional deduction mechanism which allows for the deduction of expenditure which might not ordinarily have been deductible. In the context of software developed in-house this mechanism allows for a deduction in circumstances where software may not have been ordinarily deductible, on the basis that it may create a capital asset, and is therefore a crucial element of the discussion in this thesis.

A number of discrepancies and concerns have arisen over the course of this thesis which have highlighted the fact that there exists a level of uncertainty in relation to the taxation treatment of software. The issues highlighted create the impression that South Africa's taxation dispensation is alone in these challenges. This is not the case and an analysis of the American tax jurisdiction indicates that the uncertainty surrounding the taxation treatment of software is evident even in America, with its relatively long history of trying to deal with the problems. In conducting this analysis this chapter will look firstly at the South African position and the interaction between

section 11D and the intellectual property regime. After this the position in the United States of America will be considered. The United States has been grappling with the problem for almost thirty years with the result that the country has had a longer opportunity to judicially and legislatively consider the various aspects in relation to software. The United States, notwithstanding the advantage that it has had in the longer opportunity that it has had to deal with the issues, finds itself in a position where its approach is not substantially more advanced, or better, than South Africa's. The American position points to the South African position being advanced notwithstanding the fact that it is a relatively late entry into the software development industry. This brief summary of the United States' position provides an international perspective.

6.2 SOUTH AFRICA

A discussion of the taxation treatment of the expenditure incurred in the development of software would be incomplete without reference to the research and development allowance made available to that industry by the legislature. The software industry is not catered for specifically in the Income Tax Act. Accordingly, reliance must be placed on the generic research and development incentive provisions of the Act. Previously these were covered in section 11B, such section having been replaced by section 11D, which was introduced as a tax incentive to encourage private sector investment in scientific or technological research and development, allowing a deduction for expenditure actually incurred by a taxpayer directly for activities undertaken in the Republic for the purpose of research and development.²³⁹

In so far as the accounting treatment in South Africa is concerned, research is defined, in terms of IAS 38, as the original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding. Development is defined, in terms of IAS 38, as the application of research findings or other knowledge to plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services before the start of commercial production or use.

²³⁹ Stiglingh, M., Koekemoer, A.D., van Schalkwyk, L., Wilcocks, J.S., de Swardt, R.D. 2011. **SILKE: South African Income Tax 2012**. Durban: LexisNexis at 276.

Section 11D(3) provides for an additional 50 per cent deduction in respect of operating expenditure or any expenditure incurred by the taxpayer directly in respect of research and development activities, as contemplated in section 11D(1) in addition to any deduction claimed in terms of section 11D(2).²⁴⁰ It is this allowance that presents an anomaly in respect of essentially allowing the deduction of expenditure which may, in fact, be expenditure utilised in the creation of a capital asset.

6.2.1 THE REQUIREMENTS OF SECTION 11D

Section 11B and its successor, section 11D, raise concerns in a number of areas.²⁴¹ What the provisions sought, and seek, to achieve is the promotion of private-sector investment in scientific or technological research and development.²⁴² It is submitted that although section 11D represents a streamlined version of section 11B, it has perpetuated some of the problematic characteristics of section 11B in not making specific provision for the unique nature of the software industry notwithstanding its brief reference to a computer program. While it is not the purpose of Income Tax legislation to make such provision it is submitted that a better informed legislature, when considering the codified and established principles of intellectual property should, at the very least, have created a framework more amenable to accommodating the software industry.

One of the requirements of section 11D is the “discovery” of “non-obvious” scientific or technological knowledge.²⁴³ This definition is included in the Patents Act, as well as other legislation tasked with the protection of intellectual property.²⁴⁴ The difficulty with this is that novelty, as required by the Patents Act 57 of 1978, requires that an invention does not form part of the state of the art immediately prior to the date of invention.²⁴⁵ The Courts have frowned on a developmental conglomeration of ideas already in existence therefore not supporting the idea that iterations of ideas may be brought within the concept of “non-obvious scientific or technological

²⁴⁰ *Ibid* and Section 11D(3) of Act 58 of 1962.

²⁴¹ Margo, D. 2009. **An Assault on the taxpayer and on practitioners-by SARS**. De Rebus at 39-40. It should be noted that section 11D is the replacement of section 11B, see South African Revenue Services, **Interpretation Note 50**, 28 August 2009.

²⁴² South African Revenue Services, **Interpretation Note 50**, 28 August 2009.

²⁴³ Section 11D(1)(a)(i) of Act 58 of 1962.

²⁴⁴ Copyright Act 98 of 1978, Designs Act 195 of 1993.

²⁴⁵ See section 25 (5) of Act 58 of 1978.

knowledge”.²⁴⁶ Therefore, where there is a similarity between the novel development and a pre-existing program that performs the same operations in the same manner with the same result, novelty cannot be a characteristic of the latter contribution as required by the Patents Act.²⁴⁷

The test for the existence of novelty in an invention is whether the technology that forms the primary part of the invention was disclosed prior to the invention’s inception, or creation and, if same has been disclosed the latter invention will not be entitled to protection under the Patents Act.²⁴⁸ It may be argued that section 11D(1), by utilising the term discovery, negates the novelty requirement of the Patents Act in that discovery implies the discoverer’s awareness being brought to something which is already in existence.²⁴⁹ It is submitted, however, that the Department of Science and Technology, in processing the application in terms of section 11D(9), is bound by confidentiality provisions which would prevent the type of disclosure which would negate the novelty provisions.²⁵⁰ It would therefore appear that the section does not compromise the novelty and disclosure requirements set out in the Patents Act. Although the Patents Act excludes the patenting of software it must be borne in mind that the considerations of that Act are relevant in that it must be recognised that software may be patented in other jurisdictions such as the United States.²⁵¹

The second consideration is that of the discovery being ‘non-obvious’ and, accordingly inventive. This requirement is analogous to the requirements of the Patents Act.²⁵² The requirement that the inventive step should not be obvious was effected in the Patents Act and is best stated by the test of: “whether it was obvious to a person skilled in the art, having regard to any matter which forms, immediately before the date of registration of a patent of the invention, part of the state of the art.”²⁵³ The test in this respect is well known in South African Intellectual Property law and involves an enquiry as to firstly, what, precisely, the inventive step concerned was; secondly what the state of the art was prior to such step; thirdly, in what respect

²⁴⁶ *Letraset v Helios Ltd* 1972 3 All SA 191 (A).

²⁴⁷ *Veasy v Denver Rock Drill and Machinery Co. Ltd* 1930 AD 243.

²⁴⁸ *Gentrico AG v Firestone (SA) (Pty) Ltd* 1972 1 All SA 201 (A).

²⁴⁹ Stiglingh, M., Koekemoer, A.D., van Schalkwyk, L., Wilcocks, J.S., de Swardt, R.D. 2011. **SILKE: South African Income Tax 2012**. Durban: LexisNexis at 278.

²⁵⁰ Department of Science and Technology of South Africa. Interview. Pretoria, 10 November 2012.

²⁵¹ Section 25(1) of Act 58 of 1978.

²⁵² Section 25(1) of Act 58 of 1978.

²⁵³ Section 25(10) of Act 58 of 1978.

the step differs from the state of the art; and, fourthly, having regard to the relationship between the second and third steps, whether such a difference would be obvious to a person skilled in the art.²⁵⁴ It is these steps that are used to determine whether or not the technological development that has taken place is inventive and, accordingly, would qualify as research and development as defined in paragraph 8 and paragraphs 54 to 62 of IAS 38 and set out in section 11D(1). Necessarily, the utilisation of these tests will have a bearing on whether or not the research and development qualifies for the research and development deduction in terms of section 11D(2) or (3).

6.2.2 THE CHALLENGES IN RELATION TO SECTION 11D

In light of the above a synthesis of the factors used to determine whether or not research and development qualifies in terms of section 11D is necessary. Firstly, section 11D seeks to promote technological development. Secondly, this development must be non-obvious, and thirdly, the onus in respect of proving such novelty rests on the taxpayers if they wish to qualify for the benefits available under the section, in terms of sections 11D(9) and section 102 of the Tax Administration Act.

Strauss, in her Masters' thesis, has pointed out that novelty, as used in the Income Tax Act and "new", as used in the Patents Act, are not mutually exclusive concepts on the basis of the principle that disclosure, as required by section 11D, will affect the state of the art and possibly negate the novelty of any development. This is because "new" is defined as not forming part of the state of the art, whereas novel is defined as being "strikingly new, unusual or different".²⁵⁵ It is submitted that this is incorrect when "new" is read with the requirement of the discovery being non-obvious. The reason for this is that, in relation to software development there are any combination of factors, or code combinations, which when combined in an infinite set of permutations may result in a variety of 'non obvious discoveries', all qualifying, on a loose interpretation of the provisions, for the benefits in terms of section 11D. The result of this would be the setting of a lower standard for acceptance, which would be open to abuse and possibly be counterproductive to the legislature's intention of stimulating innovation.

²⁵⁴ *Ensign Brickford (SA) (Pty) Ltd v AECl Explosives and Chemicals Ltd* 1998 All SA 453 (A) at 461.

²⁵⁵ Strauss, C. 2011. **An Analysis of Sections 11D(1)(A) and 11D(5)(B) of the Income Tax Act 58 of 1962 as amended**. Unpublished Master's Thesis. Stellenbosch: University of Stellenbosch at 48.

Section 11D states what is allowable as a deduction, the positive test, and what may not be deducted, the negative test, contained in section 11D(8). What is allowable as a deduction is expenditure relating to the systematic investigative or systematic experimental activities of which the result is uncertain, for the purpose of the discovery of non-obvious scientific or technological knowledge, the creation of any invention, design or computer program or developing or significantly improving any invention, design or computer program or knowledge.²⁵⁶ However, the section specifically excludes development to enhance internal business processes, unless the development in respect of the internal business processes is conducted for external exploitation for sale or license to customers. In terms of the argument advanced in the previous chapters this may exclude any goodwill creation or enhancement by means of increased efficiencies brought about by internally developed software.²⁵⁷

The provisions of section 11D(8)(d) exclude a deduction in respect of expenditure relating to management or internal business processes. It should be noted that the Taxation Laws Amendment Act 24 of 2011 amended the section. The amendment allows for the deduction of internal processes where such processes are to be either sold or licensed by those who created the software. This is in line with The Frascati Manual of the Organisation for Economic Cooperation and Development which presented a proposed standard practice for research and experimental development and is widely regarded as the best practice manual on the subject.²⁵⁸ While the exclusion in section 11D(8)(d) is, in principle, in line with the Frascati Manual, the manner in which it is excluded by SARS in Interpretation Note 50, which deals with section 11D by having as its primary purpose the providing of guidance on the interpretation and application of section 11D, and renders software even remotely connected to internal business processes excludable, is perhaps too draconian in its implementation.²⁵⁹ The Interpretation Note specifically excludes software activities

²⁵⁶ Stiglingh, M., Koekemoer, A.D., van Schalkwyk, L., Wilcocks, J.S., de Swardt, R.D. 2011. **SILKE: South African Income Tax 2012**. Durban: LexisNexis at 278.

²⁵⁷ Stiglingh, M., Koekemoer, A.D., van Schalkwyk, L., Wilcocks, J.S., de Swardt, R.D. 2011. **SILKE: South African Income Tax 2012**. Durban: LexisNexis at 279.

²⁵⁸ OECD. 2002. **Proposed Standard Practice for Surveys on Research and Experimental Development, 6th ed.** [On line]. Available: http://www.uis.unesco.org/Library/Documents/OECDFrascatiManual02_en.pdf. [Accessed 7 August 2012]

²⁵⁹ Margo, D. 2009. **An Assault on the taxpayer and on practitioners-by SARS**. De Rebus, 39-40. See also OECD. 2002. **Frascati Manual**. [On line]. Available:

which provide support for existing systems as well as costs in respect of business application software.²⁶⁰ Reasons advanced for this by Margo include SARS' misinterpretation of certain fundamental intellectual property concepts, the understanding of which is critical in the transposition of intellectual property principles into the sphere of income tax.²⁶¹ However, in light of the contents of Interpretation Note 50, it is submitted that firms wishing to make deductions in respect of the development of internal-use software, will be confined to doing so within the provisions of the general deduction formula, which in view of the possible capital nature of such software, is problematic. Where, however, they develop software for sale or license, they may qualify for the enhanced deduction in terms of section 11D.

The South African Revenue Service had, as mentioned above, in 2009, attempted to clarify its position in relation to section 11D by issuing Interpretation Note 50. The difficulty with Interpretation Note 50 is that the provisions therein which may have found application in dealing with the concerns raised in relation to the depreciation of software and other ancillary provisions have been amended to the exclusion of many of the historical provisions, rendering the section 11D, as it stands at the end of 2013, significantly different to the section 11D as it stood in 2009 at the date of publication of Interpretation Note 50.

Interpretation Note 50 does, however, provide a useful tool in ascertaining the intention of the legislature in the formulation of the section as well as foundational guidelines in the application thereof. The contents of the Interpretation Note have been discussed in detail in various sections of the thesis and provide a useful point of departure in the analysis of the section, subject to the caveat above.

The above discussion identifies the degree of uncertainty in the South African taxation context as to how the costs incurred in the development of software should be treated. The analysis must now turn to the consideration of the United States'

http://www.uis.unesco.org/Library/Documents/OECDFrascatiManual02_en.pdf. [Accessed, 7 August 2012]; South African Revenue Services, Interpretation Note 50, 28th August 2009 at 20.

²⁶⁰ South African Revenue Services, **Interpretation Note 50**, 28th August 2009 at 20.

²⁶¹ See Margo *supra*, specifically his reference to the section 4.2.4 where it refers to 'a computer program for sale for use under license' and the absence of a distinction between the sale of the program and making available for use under license, one of the fundamental tenets of the governance of intellectual property.

position to explore whether or not the difficulties apparent in the South African dispensation exist in that jurisdiction.

6.3 THE UNITED STATES OF AMERICA

As far back as 1984 the development of software was recognised as one of the most promising areas of growth in the high-technology field. This was, however, subject to the challenges faced in respect of international competition, and the necessity of countering these challenges by providing a framework which facilitates development, an end best achieved by extending incentives to those involved in software development.²⁶² The initial research and development tax credit, implemented in 1981, allowed the taxpayer to receive a tax credit equal to twenty-five per cent of the qualifying research expenditure, such expenditure being limited to wages paid to employees conducting research, supplies used in research and rental payments paid for personal property used in research.²⁶³

Research in the context of the legislation of the time was limited to the meaning of research contained in section 174 of the Internal Revenue Code. The Internal Revenue Service (IRS) identified the difficulty that software would not normally qualify for research or experimental expenditure within the meaning of section 174 and proceeded to state that, where costs were incurred in the development of new or *significantly improved* software, these costs would be deductible, provided the operational feasibility of the software would be in serious doubt, therefore creating a serious risk factor that was to be present before the costs could be deducted.²⁶⁴ The latter requirement was vehemently opposed and eventually abolished at a hearing of the Senate Finance Taxation Sub-committee on the Research Tax Credit.²⁶⁵ However, in the same statement, where the risk requirement was eliminated, a distinction was created between in-house developed software, customised software and software developed for resale, with expenditure relating to the first two categories not being

²⁶² Yost, J. 1983- 1984. "A Survey of Tax Issues Affecting Software Developers and Users", **36 Tax Executive** at 120.

²⁶³ IRC §44F.

²⁶⁴ Prop. Reg. § 1.44F-1 through 1.44F-7 and 1.174-2, published in Federal Register, Vol. 48, No. 15, Friday, January 21, 1983.

²⁶⁵ Statement by John E. Chapoton, Assistant Treasury Secretary for Tax Policy, at a May 27, 1983, hearing of the Senate Finance Taxation Subcommittee on the Research Tax Credit. During this hearing, the Treasury also recommended the research tax credit be extended for three years through December 31, 1988.

deductible.²⁶⁶ The practical effect of the expensing of these development costs was contained in the IRS Revenue Proclamation 69-21.²⁶⁷ The statement therein was that developers would be able to deduct the costs of developing such software (for resale) in accordance with the rules and principles applicable under section 174.

One of the pivotal considerations in respect of linking the research and development costs of software to the section 174 requirements was the ability to elect whether or not to capitalise or expense these costs.²⁶⁸ This had a direct bearing on the financing strategy utilised by many start-up software companies in that the section made them eligible to obtain financing by means of research and development partnerships.²⁶⁹ Partnerships were formed by investors seeking immediate tax relief where they would subcontract with software companies to perform research on behalf of the partnership.²⁷⁰ These partnerships were purpose-created in order to take advantage of section 174 and were not found elsewhere in the code. In fact, the closest comparator was section 162, which allowed the deduction only if the partnership through which the research and development was undertaken was itself engaged in a trade or business.²⁷¹

The IRS had also historically refused an investment tax credit on software on the premise that it did not constitute tangible property.²⁷² The rationale was that the regulations of the time excluded intangible property such as patents and copyrights from qualifying for a credit.²⁷³ This approach was upheld by a revenue ruling which stipulated that the credit would only be allowed if the software was purchased in conjunction with the hardware and if the cost of the software was included in the cost of the hardware.²⁷⁴

²⁶⁶ *Ibid.*

²⁶⁷ Revenue Proclamation 69-21, 1969-2 C.B. 303.

²⁶⁸ Revenue Ruling 71-248, 1971-2 C.B. 55.

²⁶⁹ Yost, J. 1983- 1984. "A Survey of Tax Issues Affecting Software Developers and Users", **36 Tax Executive** at 122.

²⁷⁰ *Ibid* at 123.

²⁷¹ At one time there was some concern whether software development costs would be considered as R & D under section 174 for all purposes, including the lesser "in connection with a trade or business" test. However, this concern was not apparent at the time of analysis.

²⁷² Yost, J. 1983- 1984. "A Survey of Tax Issues Affecting Software Developers and Users", **36 Tax Executive** at 124.

²⁷³ Treasury Regulation § 1.48-1(f).

²⁷⁴ Revenue Ruling 71-177 1971-1 C.B. 5.

In order to understand the tangibility issue it must first be decided whether software is a product or service. Where off-the-shelf, or “canned”, software is sold, it appears to retain all the characteristics of a product.²⁷⁵ However, where the software is customised and tailored to the client’s needs, the software may lose its off-the-shelf characteristic and, depending on the extent of the tailoring, be more akin to a service in that the product itself is insufficient to fulfill the requirements for which it is purchased and the associated expertise in providing any customisation is almost inseparable from the purchase.²⁷⁶ Whether software is a tangible or intangible asset may find its answer in the method by which the software is acquired. Where it is received over the air, or via a telephone line, the approach appears to be that it is intangible. Where, however, it is delivered on a tangible medium, there exists scope for an argument that it is tangible.

William Raabe best presented the argument for tangibility in 1984.²⁷⁷ In proposing his theory, he advanced the contention that the computer is a clearly tangible asset that is incapable of performing functions on its own. He distinguished between operational software, required for the very basic functioning of the computer, and application software, which extended the utility of the computer further than basic functionality. It is the case for application software that concerns the present thesis. Raabe suggested that application software extended the utility of the computer by modifying the hardware so that persons unfamiliar or unversed in the language of operational software would still be able to access the power of the computer in order to perform the various functions which they required the machine to perform. It is this adaptability which essentially enhances the tangible computer equipment in order that it may be functionally capable of performing the tasks which it was purchased to perform, thereby rendering the software inextricably linked to the functioning of the computer. Essentially the argument is that a computer is not usable, *per se*, without the addition of software. Extending this argument, it could be stated that a computer is not usable “for the purpose for which it is required, without the addition of application software”.

²⁷⁵ Raabe, W. A. 1983-1984. “Property, Sales and Use Taxation of Custom and “Canned” Computer Software; Emerging Judicial Guidelines”, **36 Tax Executive** 227 at 228.

²⁷⁶ Raabe, W. A. 1983-1984. “Property, Sales and Use Taxation of Custom and “Canned” Computer Software; Emerging Judicial Guidelines”, **36 Tax Executive** 227 at 228.

²⁷⁷ Raabe, W. A. 1983-1984. “Property, Sales and Use Taxation of Custom and “Canned” Computer Software; Emerging Judicial Guidelines”, **36 Tax Executive** 227 at 230.

The American legislative development began primarily with the courts likening software to other analogous products with similar characteristics. For example books, records and movies all involved the transfer of intangible ideas by utilising tangible, but independently less valuable, mediums which were reproduced *en mass*.²⁷⁸ These analogies were not infallible in that the media utilised therein were essentially conveying a message which was able to be retained by the viewer or reader once the media had been destroyed. Software, however, is required on a continuous basis to ensure the functioning of the hardware in which it is installed or, at the very least, to supplement the hardware's basic software to produce the specific results required by the user. Raabe identifies four tests that had been applied by the courts in reaching their conclusion, which likened software to products with similar characteristics, namely: the "discardability" of the tangible product, namely the disc or medium through which the software was delivered to the end user; the "essence of the transaction" test; the disk as a mere conduit; and alternative methods of conveying the information.²⁷⁹

In 1972 the question of tangibility was raised in the matter of *Universal Computer Associates Inc.*²⁸⁰ This case concerned the purchase of a computer and two programs that were contained on punch cards. In coming to its decision the court found that the taxpayer had purchased intangible property in that the punch cards containing the programs were disposable and used merely to transport the code and that the value of the punch cards was negligible in relation to the value of the programs contained thereon. In reaching its conclusion, the court recognised that the software has an existence independent of the medium through which it is transferred. This is relevant in relation to the enduring benefit test, discussed in chapter four of this thesis, applied in determining the capital or revenue nature of an asset. In the matter of *First National Bank of Fort Worth* the court came to a similar conclusion, highlighting the importance of the true nature of the transaction being determined by the intention of the parties and that, if the software is the underlying *causa* of the transaction, it remains intangible property.²⁸¹ This too is important in that it must be determined

²⁷⁸ Raabe, W. A. 1983-1984. "Property, Sales and Use Taxation of Custom and "Canned" Computer Software; Emerging Judicial Guidelines", **36 Tax Executive** 227 at 232.

²⁷⁹ Raabe, W. A. 1983-1984. "Property, Sales and Use Taxation of Custom and "Canned" Computer Software; Emerging Judicial Guidelines", **36 Tax Executive** 227 at 232.

²⁸⁰ *District of Columbia v. Universal Computer Associates, Inc.* 465 F.2d 615 (U.S. App. D.C. 1972).

²⁸¹ *First National Bank of Fort Worth v Bullock* 584 S.W.2d 548 (Texas Civil Appeal 1979).

whether or not the parties are purchasing intangible knowledge or professional services. It should be noted that in the American system a distinction was drawn between a taxable finished product which is then sold and is subject to sales tax and a stream of intangible information which was not taxable on the basis that it was not a product *per se*.²⁸² The distinction in South African jurisprudence would be akin to that of a capital purchase versus the purchase of a continuing service, relevant to the ‘once-and-for-all’ test discussed in chapter four of this thesis. .

The debate in the above matters was largely confined to the question of the applicability of sales taxes in the United States with the question being primarily whether or not the software was a product sold, and therefore liable for sales tax, or whether the product was customised, akin to a service, and therefore exempt from sales tax. The courts found that when customers purchase a customised program, they are purchasing a service and not a tangible product whereas when they purchase ‘canned’ or non-customised software, they are purchasing a product.²⁸³ Obviously this has a bearing on the analysis from the customer’s side as to whether the expense is a revenue or capital expense. If a service is purchased there will be little difficulty in classifying it as a revenue expense. If an intangible product is purchased there will be a difficulty in determining whether or not the cost is capital or revenue in nature.

In viewing this from the purchaser’s perspective it then falls to consider what the in-house production of software replaces. Does it replace a service that would have been outsourced to a service-provider, and therefore be revenue in nature, or does it replace a once-off purchase that would have been considered capital in nature?

The result of the difficulties highlighted above was the adoption by Congress of a revised regime for the deduction of acquisition costs of intangibles in an effort to achieve a level of simplicity, a move which, although effective in most other respects, failed computer software dismally.²⁸⁴ The basis for the reform was the *ad hoc* manner in which various intangibles were amortised, giving rise to resource-consuming debate and litigation and a recognition by the legislature that there existed a need for a uniform amortisation regime in order to provide a level of certainty in relation to the

²⁸² *Commerce Union Bank v. Tidwell* 538 S.W.2d 405 (Tenn.1976).

²⁸³ *Maccabees Mutual Life Insurance Company v Treasury Department* 122 Mich. App 660 (1983).

²⁸⁴ Daly, B. 1996. “The Need for a Uniform Software Amortisation Regime”, **74 Taxes 186** at 186.

deduction of expenditure incurred in development.²⁸⁵ One of the purposes of the Omnibus Budget Reconciliation Act of 1993 was to address and standardise the amortisation of goodwill as goodwill itself was seen as having no easily discernible useful life.²⁸⁶ It is submitted that the same can be said of internally-developed software as there is scope for an argument that it constitutes a contribution to goodwill in the valuation of a company at its ultimate sale. Software had, since 1969, been amortised over a period of five years.²⁸⁷ As a result of extensive industry lobbying to ensure that software was not brought within the general provisions of the Omnibus Budget Reconciliation Act an exception was created, allowing for a thirty-six month amortisation for software that fitted into a narrowly defined category.²⁸⁸ It is this Act that has essentially codified the distinction between off-the-shelf, or canned, software and customised software.

Off-the-shelf software, defined as software which is readily available for purchase by the general public, subject to a non-exclusive license and not substantially modified, is excluded from the provisions of the new section 197, brought about by the Omnibus Budget Reconciliation Act and is accordingly dealt with in terms of section 167 of the Code which provides for the thirty-six month straight-line depreciation.²⁸⁹ This type of software is generally ready to run, straight out of the box, and requires no additional modifications to provide full value to the customer.²⁹⁰ The language of the statute in this respect was clear cut and virtually unassailable when regard is had to its plain meaning.

Customised software, however, did not and, in submission, still does not, enjoy the same certainty. The section made no provision for customised software, such software specifically falling short of the section's "without substantial modification" test.²⁹¹ There was an additional section which exempted software "which is not acquired in the acquisition of assets constituting a trade or business or substantial portion thereof"

²⁸⁵ Shanahan, J. R. 1994. "Software Company Coalition Concerned about Treatment of Licensing under Intangibles Amortisation Regulations", **94 Tax Notes Today** 192-38; 138 Congressional Senate Hearing Rec. §§14919 and 14929 at 3.

²⁸⁶ Omnibus Budget Reconciliation Act of 1993, P.L. 103-66, 103d Congress, 1st Sess: 107 Stat 312.

²⁸⁷ In terms of Revenue Procedure 69-21, 1969-2 CB 303.

²⁸⁸ Daly, B. 1996. "The Need for a Uniform Software Amortisation Regime", **74 Taxes 186** at 189 citing: "Computer Group Opposes 14-year Amortisation for Software", **91 Tax Notes Today** at 223-269.

²⁸⁹ IRC Section 197(e)(3)(A)(i).

²⁹⁰ Daly, B. 1996. "The Need for a Uniform Software Amortisation Regime", **74 Taxes 186** at 189.

²⁹¹ Daly, B. 1996. "The Need for a Uniform Software Amortisation Regime", **74 Taxes 186** at 190.

from the depreciation period of thirty-six months.²⁹² It has been argued that this section may be interpreted as being wide enough to exempt customised software from the depreciation period.²⁹³ However, certain groups, including the American Bar Association Section on Taxation proffered the approach that computer software would fall within section 197 only if it was customised *and* acquired in an acquisition of a trade or business.²⁹⁴ Were customised software not to be exempted there would be a general market skewing in favour of off-the-shelf software. In these circumstances businesses would be unable to justify the purchase, or development, of customised software until the efficiency gains from the software would at least be equal to the tax penalty, or opportunity cost, of not purchasing, or creating, customised software. Phrased differently, the failure to exclude customised software from the taxation requirements by not allowing the costs incurred in the production thereof to be deductible would effectively increase the real cost of customised software, thereby discouraging the creation of customised software and encouraging the purchase of off-the-shelf software.

The third position, that of in-house created software, presents a somewhat complicated situation. The American Internal Revenue Code's section 162(a) is a parallel of the South African section 11(a) relating to the deduction of ordinary and necessary business expenses. The deduction of the costs of the in-house customisation and, presumably by inference, creation of in-house software, were dealt with by the Supreme Court in 1992 in the matter of *Indopco Inc v Commissioner* where it was held that where expenditure is made with the expectation that the corporation will receive benefits for an indefinite future or for a time somewhat longer than the current taxable year, the expenditures need to be capitalised and are not ordinary and necessary business expenses deductible under section 162(a).²⁹⁵ Proceeding, therefore, on the basis that the proper treatment of such expenditure is capitalisation, in a similar manner to the way in which IAS 38 treats intangibles, the enquiry must then return to the question of amortisation as discussed above. The test in relation to the amortisation of software is premised on the point of departure of "useful life" of the

²⁹² See section 197(e)(3)(A)(ii) of the IRC P.L. 99-514, Oct 22, 1986, which amended the Internal Revenue Code of 1954.

²⁹³ Daly, B. 1996. "The Need for a Uniform Software Amortisation Regime", **74 Taxes** 186 at 190.

²⁹⁴ Terry, T.D. 1995. "ABA Report Offers Suggestions for Intangibles Regulations (Section 197-Amortisation of Intangibles)", **95 Tax Notes Today** 16 at 26.

²⁹⁵ *Indopco Inc v Commissioner* 92-1 USTC 50, 113, 403 US 79 (1992) at 1046.

software which is a determinative factor in the application of the enduring benefit test as well as being indicative of the taxpayer's treatment of the software. The concern, from a South African perspective, that also becomes apparent in this analysis is that the write off periods contained in Binding General Ruling No. 7 and Interpretation Note 47 are so short as to create a difficulty in assessing the extent of the enduring benefit enjoyed by the taxpayer in that SARS, in allowing such short write-off periods, recognises the relatively short useful life of software. The weakness hereof is, accordingly, that the distinction between capital and revenue becomes blurred.

In so far as custom-written software is concerned there was a substantial amount of confusion which still exists today.²⁹⁶ During the period of research explored in this thesis, both the expensing and the capitalisation positions were open as viable alternatives. Revenue Procedure 69-21 has already been dealt with above in terms of which custom software was commonly expensed in terms of section 3 thereof.²⁹⁷ Two statements made during the Bill hearings regarding the Omnibus Budget Reconciliation Act are of relevance, the first being that it was made clear that the Bill before the house dealt with purchased intangibles and not self-created intangibles.²⁹⁸ This statement appears to reverse the earlier stated position pertaining to the deduction of expenses incurred in the production of in-house software, by allowing the deduction of intangibles such as the software. Again this adds a further dimension to the problem, especially in light of the intention of the legislature in promulgating the Act being the protection of the American software publishing industry, or the creators of canned software.²⁹⁹

A reprieve has, however, relatively recently been found in the Wisconsin Supreme Court. A Wisconsin corporation, Menasha, after expert consultation, found itself in a situation where it required a global software application to handle its business requirements across its sixty-three locations and that the system would require a certain amount of customisation in order to cater for Menasha's unique requirements.³⁰⁰ Accordingly, Menasha acquired an R/3 System from SAP, an

²⁹⁶Bureau of National Affairs. 1994. **IRS Releases 29 Comment Letters on a Variety of Proposed Regulations**. Daily Tax Report.

²⁹⁷ Revenue Procedure 69-21, 1969-1 CB 303.

²⁹⁸ House Hearings at 61 (Gideon).

²⁹⁹ House Hearings at 178 (Pickle).

³⁰⁰ Noel, C., Lochridge, R. 2008-2009. "Wisconsin Supreme Court Rules SAP is Custom Software for Sales and Use Tax Purposes", **10 Corporate Business Taxation Monthly** 61

information technology developer, by means of license on the premise that it was customisable, albeit over a long period and with substantial resource consumption. It should be noted that this matter concerned sales tax and not the incentive tax that forms an element of the present research. The principles remain, however, transferrable and are therefore important. In distinguishing between custom and canned software the court took into account seven factors.³⁰¹ The first is the extent to which the vendor or independent consultant engaged in significant presale consultation and analysis of the users systems and requirements. *In casu* extensive consultations spanning a period several years took place. The second is whether the program is loaded onto the customer's computer by the vendor and the extent to which the installed program must be tested against the program's specifications, where *in casu* testing had occurred for a period of three to four months after the installation. The third is the extent to which use of the software requires substantial training of the customer's personnel and substantial written documentation, as was the case in this matter in that all employees were to attend courses on the system ranging from two to five days in length. The fourth is the extent to which enhancement and maintenance support by the vendor is needed for continued usefulness, evidenced by Menasha's weekly contact with SAP for assistance after the system had been implemented and the installation of updates was performed by SAP on a quarterly basis. The fifth is that there is a rebuttable presumption that any program with a cost of \$10 000 or less is not a custom program, a factor not in issue in the Menasha matter. The sixth is that custom programs do not include basic operational programs or prewritten programs. The court found that the initial program was useless to Menasha until such time as it was modified and that the modification process had been time consuming and expensive. Finally, and most importantly, if an existing program is selected for modification, there must be a significant modification of the program by the vendor so that it may be used in the customer's specific hardware and software environment. Given Menasha's investment in both time and finances it was held that, in the absence of such modification, the program would not be one which was

³⁰¹ Noel, C., Lochridge, R. 2008-2009. "Wisconsin Supreme Court Rules SAP is Custom Software for Sales and Use Tax Purposes", *10 Corporate Business Taxation Monthly* 61 at 62.

available for general use.³⁰² The finding that the software was custom software therefore hinged primarily on the fact that Menasha had made a significant investment in the consultation and analysis prior to purchase in the form of the testing, training, written documentation, enhancement, maintenance and support of the system.³⁰³ If, then, this software is not canned, and therefore custom software, what of the deductibility of expenditure incurred in bringing the software into use, as the software is still purchased from a supplier, yet it is customised? This question highlights the fundamental difficulties in relation to the uniformity of the treatment of software.

This then leads to the question as to what the position of computer software is in relation to the section 174 research and development credit. The debate dealing with the section in relation to software began in May 1989 when the IRS issued proposed regulations relating specifically to software.³⁰⁴ The research and development tax credit, aimed at increasing research activities, was introduced to the IRC as section 44F by the Economic Recovery Tax Act of 1981 with the primary purpose being the encouragement of businesses to perform the research necessary to increase the innovative qualities and efficiency of the United States economy with such activities aimed at stimulating a higher rate of capital formation and the increase of productivity.³⁰⁵ The section provided the basic framework which developed into the then section 41 which allowed an annual credit against any tax liability, of twenty five per cent of certain qualified research expenditures.³⁰⁶ Revenue Proclamation 69-21, as discussed above, indicated that the IRS had taken the position that certain costs of developing software could have been treated in a manner similar to costs incurred in product development in terms of section 174.³⁰⁷ The House of Representatives went on, however, to state that the costs of adapting existing computer software programs to specific customer needs or uses, as well as other modifications of previously developed programs, are not eligible for the credit.³⁰⁸ In 1986 the Tax Reform Act

³⁰² Noel, C., Lochridge, R. 2008-2009. “**Wisconsin Supreme Court Rules SAP is Custom Software for Sales and Use Tax Purposes**”, **10 Corporate Business Taxation Monthly** 61 at 62.

³⁰³ *Wisconsin Department of Revenue v Menasha Corporation* 754 NW2d 95, (Wisconsin, July 11, 2008).

³⁰⁴ Siboni, R.S., McCook, I.R. 1990. “The Research and Experimentation Credit and Software Development: A Confusing Past, an Uncertain Future”, **68 Taxes** 651.

³⁰⁵ P.L 97-34 and House of Representatives Report No. 426, 99th Congressional Hearing, 1st session. 177 (1985).

³⁰⁶ IRC Section 44F(b)(1), added by P.L. 97-34.

³⁰⁷ Rev. Proc. 69-21, 1969-2 C.B.

³⁰⁸ House of Representatives Report No. 97-201, 97th Cong., 1st Session, 114 (1981) at 115.

narrowed the applicability of the credit on the basis of a general consensus that the broad application of the earlier section had led to its being abused.³⁰⁹ This modification allowed for the deduction of expenditure incurred only in the discovery of new technological information which involved a process of experimentation.³¹⁰ In doing so the Act also excluded internal use software development where such development was not innovative or was commercially available or involved significant technical and economic risk.³¹¹ This legislative development, as noble as it may have been in intention, still failed the software industry, giving rise to a number of judicial challenges.

In conclusion, the test for an allowance in the United States in respect of the deduction of expenditure incurred in the production of software may therefore be expressed as a threefold enquiry. The first test is that of “innovativeness”, or where the software results in a reduction of cost, or an improvement of speed that is both substantial and economically significant.³¹² The level of innovativeness required of internal use software is substantially higher than the ordinary threshold applied to other research and development.³¹³ By utilising the substantiality of the innovativeness of the development as a base and requiring the additional economic significance, it follows that the efficiencies brought about by the development must garner either a substantial competitive advantage or improvement in relation to the processes currently available in the market.³¹⁴ By definition any such improvements that are not present in the market, or do not form part of the state of the art at the time upon which they introduced, are innovative. Therefore, even where there may be doubt as to the economic benefit, the taxpayer may still have satisfied the innovativeness test on the ground of novelty alone.³¹⁵

The second leg of the test in the United States that there must be significant economic risk in the uncertainty to the extent that the substantial resources committed by the

³⁰⁹ House of Representatives Report No. 99-426 at 178.

³¹⁰ House of Representatives Conference Report No. 99-841, at II-71 (1986).

³¹¹ Houser of Representatives Conference Report No 99-841, at II-71 and 73 (1986).

³¹² *Norwest v. Commissioner* 110 T.C. 454, 499-500.

³¹³ House of Representatives Report No. 99-426, at 178 (1985); S. Rep. No. 99-313, at 694-95 (1986).

³¹⁴ *Norwest v. Commissioner* ,110 T.C. 454, at 516.

³¹⁵ Internal Revenue Services. 1999. **Coordinated Issue All Industries Research Tax Credit - Internal Use Software (Effective Date: August 26, 1999)** [On line]. Available: [http://www.irs.gov/Businesses/Coordinated-Issue-All-Industries-Research-Tax-Credit---Internal-Use-Software-\(Effective-Date:August 26, 1999\)](http://www.irs.gov/Businesses/Coordinated-Issue-All-Industries-Research-Tax-Credit---Internal-Use-Software-(Effective-Date:August 26, 1999)). [Accessed 12 November 2012]

taxpayer to the development project will be recovered within a reasonable period.³¹⁶ This is as a result of the technical risk concomitant to the project and that the marketable value which will be derived as a result of overcoming the technical risk will be significant. This test is further indicative of the higher threshold that internal use software is subject to. Again, this requires more than mere uncertainty and therefore a higher threshold of technological advancement than in other fields.³¹⁷

The third and final leg is the commercial availability test, which hinges on whether or not the software is commercially available for purchase, lease or license from other sources. This test may be further extended where canned software is purchased and modified leading to an enquiry as to whether or not the modifications meet the innovativeness and significant economic risk tests set out above.³¹⁸ Thus this element of the test is merely a catch-all provision which, in appropriate circumstances will refer the enquiry back to the detailed scrutiny of the earlier tests.

The American position represents probably the most comprehensive evolution of the difficulties associated with the taxation treatment of the development of software. The American advantage is that it has been grappling with these challenges from as far back as 1984. Similar to the progression relating to electronic commerce which was referred to in the previous chapters, the appreciation of the nature of software development has grown in America, to the extent of it being afforded, in terms of Revenue Procedure 69-21, its own standardised approach. Notwithstanding such recognition, however, it is apparent that America still faces numerous challenges in respect of custom-written software. In the absence of legislative reform, the pervading uncertainty relating to the deductibility of costs incurred in the development of software remains a risk to those engaging in such development. In light of the above, the value in considering the American position becomes apparent as it reinforces the difficulties associated with the taxation treatment of software and gives some insight as to the challenges which the legislature is to face and, accordingly, the factors which

³¹⁶ **Internal Revenue Services. 1999.** Coordinated Issue All Industries Research Tax Credit - Internal Use Software (Effective Date: August 26, 1999) [On line]. Available: [http://www.irs.gov/Businesses/Coordinated-Issue-All-Industries-Research-Tax-Credit---Internal-Use-Software-\(Effective-Date:August-26,-1999\)](http://www.irs.gov/Businesses/Coordinated-Issue-All-Industries-Research-Tax-Credit---Internal-Use-Software-(Effective-Date:August-26,-1999)). [Accessed 12 November 2012]

³¹⁷ *Norwest v. Commissioner*, 110 T.C. 454, at 500.

³¹⁸ **Internal Revenue Services. 1999.** Coordinated Issue All Industries Research Tax Credit - Internal Use Software (Effective Date: August 26, 1999) [On Line], Available: [http://www.irs.gov/Businesses/Coordinated-Issue-All-Industries-Research-Tax-Credit---Internal-Use-Software-\(Effective-Date:--August-26,-1999\)](http://www.irs.gov/Businesses/Coordinated-Issue-All-Industries-Research-Tax-Credit---Internal-Use-Software-(Effective-Date:--August-26,-1999)). [Accessed 12 November 2012]

should be taken into consideration, in remedying the deficiencies in the South African taxation framework in relation to software.

6.4 CONCLUSION

The nature of software is such that its dynamic character makes its accommodation in the taxation environment difficult. Accordingly it requires a treatment that has regard to the infinite permutations present in the manner in which it is developed and implemented. It is this hybrid treatment that should be found in legislation which provides for appropriate research and development incentives. This chapter has identified the research and development position in South Africa and the United States and elaborated on the incentives available and the relationship between these incentives and the expenditure involved in the development of software.

The most informative of these excurses has been the analysis of the position in the United States, primarily because the challenges relating to software were identified at a far earlier stage than other jurisdictions and, accordingly, there has been a longer period of incubation which has run in parallel with the evolution of software development yet, in submission, still fails to accommodate software appropriately.

While South Africa has in place a Research and Development incentive scheme it is plagued by certain exclusions which render the scheme limiting in respect of the development of internal-use software, as that software is precluded from qualifying for the research and development incentive, a major hurdle in light of the prevalence of development in respect of software which enhances internal business processes. Accordingly, the section excludes the technological innovation in software which is related to internal business processes. In doing so the section does not fulfill its objective in relation to technological innovation in software development and can be said to have failed the industry.

This chapter illustrates that the United States has enjoyed a somewhat longer period of grappling with the taxation challenges relating to software, having recognised these as far back as 1984. Historically the IRS refused a tax credit for software on the basis that it did not constitute tangible property. A differentiation was created between canned software and customised software. Subsequently the necessity of software in using the hardware lent credence to an argument for its tangibility, leading to the fact

that certain software, required in order for a computer to perform the tasks for which it was purchased, became inextricably linked to the hardware notwithstanding the fact that software had an existence independent of the medium through which it is transferred. Congress eventually passed a revised regime for the recovery of acquisition costs of intangibles in an effort to achieve a level of simplicity. Notwithstanding such revision there still exists a certain degree of uncertainty in respect of customised software and it is this uncertainty which highlights the difficulty in respect of the relationship between the costs incurred in the production of software and the taxation treatment of those costs. There exists a need for the development of internationally accepted guidelines to facilitate the taxation treatment of expenditure incurred in the production of software.

CHAPTER SEVEN: CONCLUSION

7.1 INTRODUCTION

Software is widely developed and utilised to perform specific information processing activities and provide functionality for computer users. The types of software which are developed vary in relation to the requirements of the market, generally, and, more specifically, the businesses that utilise the software in order to operate. This software may be sourced in a variety of different ways including the direct purchase or, as has been the focus of this thesis, by means of developing the software internally, by the businesses themselves. When businesses develop the software themselves they incur certain costs thereby either increasing the value of their business as a result of the efficiencies gained by developing software which is custom-suited to the requirements of their business or selling the software which is developed.

The Income Tax Act provides the basis upon which a South African resident, whether individual or company, is taxed. The basis for determining the taxable income of a taxpayer is the deduction of any amounts allowable in terms of the Act from the taxpayer's gross income. The Act, in section 11(a) provides for what may be deducted. Section 23(g) of the Act sets out those expenses which are not allowable as deductions in the determination of taxable income. One of the classes of expenditure which is not allowed is any expenditure which may give rise to a capital asset. The development of software, either in creating intellectual property which may be licensed, or in creating efficiencies which will lead to the enhanced value of the business at the sale thereof, may create a capital asset. Ordinarily, therefore, the expenditure incurred would not be deductible in terms of section 11(a), being of a capital nature. The legislature however, enacted section 11D, which, in certain circumstances, allows for the deduction of research and development expenditure, notwithstanding its capital nature.

The taxation framework creates numerous difficulties in dealing with the taxation treatment of internally developed software and the expenditure incurred in its development. Section 11D, itself, is not without its weaknesses. The most pivotal of these is the exclusion in terms of section 11D(8)(d) and 11D(8)(h) in relation to internal business processes and goodwill in that software developed internally may give rise to both of these and may, therefore, be excluded from the benefit of the

section. Accordingly, there exists a degree of uncertainty in relation to the taxation treatment of software which this thesis sought to identify and address. The primary goal of the thesis was to explore the nature of software which is developed internally and its treatment in terms of the accounting and taxation framework. The source of the debate is the well-established distinction between capital and revenue, as traditionally one was not taxed on one's capital receipts, but only on one's revenue receipts, meaning that expenditure incurred in producing income of a non-capital nature was deductible but expenditure incurred in procuring or creating capital assets was not. The effect of the distinction has been ameliorated by the advent of capital gains tax, yet the delineation remains pertinent given the large differentials in tax rates relating to capital versus those relating to revenue. There have been a number of tests established in the determination of whether or not an asset is capital or revenue in nature. In light of the fact that software represents a unique concept in the taxation world an analysis of software requires a hybrid utilisation of the various principles and tests, tailored and applied uniquely to each case in order to ensure that the correct classification is reached. This is important to ensure that a situation where a blanket application of broad and, in relation to software, archaic principles do not result in the injustice of expenditure incurred in the production of software being incorrectly classified.

In order to achieve the main goal of the research, there were a number of subsidiary goals. The first was to understand the software industry's approach to the taxation treatment of software and their practical implementation of such treatment, as well as to understand the challenges faced by the software development industry. The second was to identify and explore the taxation framework which differentiates between capital and revenue and the relationship between amounts produced by software in relation to this framework. The third was to analyse the deductibility of expenditure incurred in the production of software, having regard to the general deduction formula contained in the Income Tax Act. The fourth was to examine the tests employed in the determination of whether expenditure is capital or revenue in nature, with a specific emphasis on the enduring benefit test. The fifth goal was to explore the accounting treatment of intangible assets and to compare software to such assets and to determine whether an analogy can be drawn between the value created by internally developed software and goodwill. The final goal of the thesis was to explore the South African

and American taxation framework relating specifically to the development of software in order to gain a perspective of the challenges faced regarding the deduction of expenditure incurred in the production of software.

7.2 INDUSTRY TREATMENT OF SOFTWARE DEVELOPED INTERNALLY

The first of the subsidiary goals of the research was to understand the software industry's approach to the taxation treatment of software and their practical implementation of such treatment. The input of various industry stakeholders was gathered and presented in chapter two of the thesis.

From the interviews conducted it emerged that there were a number of different approaches adopted by those in the industry. The first was that the costs of the development of software relate mainly to operational expenditure in that the inputs in the process involve primarily labour and consumables which may not necessarily be project-specific. The second approach, and probably the one which enjoys more credibility from a certainty perspective, was to adopt the principles set out in Generally Accepted Accounting Practice and International Accounting Standards whereby businesses would utilise the guidelines set out in the standards and analyse the nature of the software which is developed as against those guidelines in order to make a determination as to whether or not the software, and therefore the expenditure incurred in the production thereof, was revenue or capital in nature. These two positions represent a synthesis of the feedback provided by the various stakeholders.

What became apparent through the analysis of the stakeholders' feedback was that the industry's approach to the question regarding the deduction of expenditure incurred in the production of software systems highlights the fact that there is a large degree of uncertainty surrounding the correct treatment of the deduction, and deductibility, of the expenditure incurred in the production of software. It is upon the basis of this industry perspective that a need for the analysis of the tax principles in relation to the categorisation of expenditure as either capital or revenue in relation to the development of software, and more specifically the in-house development of software, was identified. In addition, and stemming from the analysis, was the need to analyse the treatment of expenditure incurred in the in-house development of software as either capital or revenue and the effect that a classification decision would have on invoking the provisions of section 11D.

7.3 CAPITAL VERSUS REVENUE AND THE GENERAL DEDUCTION FORMULA

The second goal of the thesis was to identify and explore the taxation framework which differentiates between capital and revenue and the relationship between receipts produced by software within that framework. In fulfilling that goal chapter three began with an analysis of the receipts which could be derived by the development of software. The chapter discussed the theoretical difference between receipts which are revenue in nature and those which are capital, having regard to a number of judicial decisions. The primary consideration pertaining to classifying the nature of the software which is developed, stems from the test which was developed in the United States which likened capital to a tree and revenue to the fruit of that tree. Where the benefit received is from software which has been created and occurs without the taxpayer parting with the software then that software can be said to be capital in nature. Where, however, the taxpayer only receives a consideration when parting with the software in its entirety, then that software is not capital in nature. The chapter, in analysing the nature of the software which is created, with a view to ultimately characterising the expenditure incurred in the creation of that software, highlights that there exists a difficulty in classifying software within the limits of the traditional taxation framework. This is as a result of the various factors which have an effect on the classification of software, including the various different ways in which an income may be derived from the production of software. The chapter also, importantly, identified the types of expenditure that may be incurred in the development of software.

The chapter then considered the general deduction formula and the requirements thereof namely, that the taxpayer must be carrying on a trade from which income is earned, that there must be expenditure or a loss, which is actually incurred, in the production of income and which expenditure or loss is not of a capital nature (the preamble to section 11 and section 11(a) of the Income Tax Act). The two important elements of the formula are those pertaining to the actual incurrence of the expenditure and the requirement that the expenditure must not be capital in nature, that is, not give rise to a capital asset.

In exploring the distinction between capital and revenue and the requirements of the general deduction formula the chapter described the taxation context within which the developers of software are required to formulate any claims in respect of deduction of expenditure incurred in the production of software which they intend to claim as deductions as against their taxable income. The chapter highlights that there exists a difficulty in ascertaining the nature of the software which is developed and, accordingly, the classification for taxation purposes of the expenditure which is incurred in the development of that software.

7.4 THE TESTS USED TO DETERMINE THE NATURE OF EXPENDITURE

For the reasons set out in chapter three there is a need to apply well-established tests in respect of classifying the nature of the software which is developed as either capital or revenue in order to inform the nature of the expenditure which is incurred in the production thereof. This is expressed in the fourth goal of the thesis, which is to examine the tests employed in the determination of whether expenditure is capital or revenue in nature, with a specific emphasis on the enduring benefit test.

The enduring benefit test is stated as: “where expenditure is made, not only once and for all, but with a view to bringing into existence an asset or advantage for the enduring benefit of a trade, [I think] there is very good reason for treating such an expenditure as properly attributable not to revenue but to capital.”³¹⁹ The degree of permanence in this test depends on a number of factors including the nature of the business and the principle that the expenditure must be such as to provide a long term benefit to the taxpayer. The enquiry must not be tainted by considerations of form over substance and, notwithstanding the form which any transaction may take, regard is to be had to the substance underlying the true nature of the transaction in order to determine the true nature of the benefit which the development of the software confers upon the taxpayer. What the expenditure is calculated to effect from a practical and business point of view must be considered, rather than the juristic classification of the legal right, if any, secured, employed, or exhausted in the process.

Accordingly the chapter analysed the test of whether or not the software to which the expenditure relates is of such a nature as to bring into existence an enduring benefit of

³¹⁹ *British Insulated & Helsby Cables v Atherton* 1926 AC 205.

sufficiently long a period as to be considered capital in nature, when regard is had to the true nature of the transaction. In doing so, three principles were stated. The first is that the expenditure must be made with a view to bringing into existence an asset or advantage for the enduring benefit of a trade. The second is that the degree of permanence of the benefit must be assessed in the context of the circumstances and in relation to the benefit the taxpayer enjoys. The third is that, in determining the nature of the expenditure, regard must be had to the substance of that expenditure as opposed to merely considering the form in which it is expressed and that the true nature of the transaction must be had regard to after having considered all the relevant factors. Accordingly, the chapter concluded that a full enquiry into the nature of the software which is created must be made when determining whether the software, and therefore the expenditure incurred in the production thereof, will be considered capital or revenue in nature. The chapter concludes that one of the factors to which regard is to be had is the taxpayer's treatment of the software in terms of accounting principles. For this reason the accounting principles which are relevant to the enquiry are considered in chapter five.

7.5 ACCOUNTING TREATMENT OF INTANGIBLE ASSETS AND THE ANALOGY TO GOODWILL

The fifth goal of the thesis was to explore the accounting treatment of intangible assets, to compare software to such assets and to determine whether an analogy can be drawn between the value created by internally developed software and goodwill. Chapter two highlighted that certain industry stakeholders utilise accepted accounting standards to determine the taxation treatment of any software they create. This statement in chapter two illustrates that the taxpayer's accounting treatment of software and expenditure incurred in the development thereof may be indicative of the taxpayer's intention with regard to the software (intention being one of the tests for determining the capital or revenue nature of the income derived from an asset). The chapter commenced with a brief analysis of the approach to the valuation of intangible assets. It then proceeded with an analysis of goodwill against the taxation principles enunciated in chapters three and four in order to begin to draw parallels between a recognised intangible asset, goodwill, and software, in order to demonstrate the manner in which the tests set out in the earlier chapters may be applied to an asset

which enjoys recognition in terms of the accounting standards as being an intangible asset.

The primary accounting standard which was identified as being relevant to this thesis is International Accounting Standard 38 (IAS 38) which deals with intangible assets. Accordingly, the chapter proceeded with an analysis of the standard and set out the statements in terms of that standard which are relevant to recognition of an intangible asset for accounting purposes. The requirements of IAS for the purposes of recognition are that the asset must be identifiable, non-monetary and without physical substance. This is the first leg of the enquiry as to the intangible element. The second enquiry, as identified in the chapter is that of the software creating an asset. The accounting standard sets out recognised criteria in respect of the classification of an asset. To be considered an asset the resource must be controlled by an entity which has either created or purchased it and from the asset future economic benefits must be expected to flow to the entity.

The chapter then analysed the requirements of the accounting standard, in respect of the treatment of research and development, against section 11D of the Income Tax Act. This analysis highlighted the different focuses of the two standards with the requirements as set out in IAS 38 indicating that, in fact, an asset or product could be recognised as having come into existence at the research phase, creating the possibility that there is scope for a deduction on the basis of the achievement of the objects of section 11D prior to there having even been development of a final product.

The chapter accordingly highlights the importance of the accounting standards in relation to the software industry as a result of the weight which is placed on such standards by industry stakeholders. The chapter then identifies and discusses the extent to which this importance may prove to be problematic as there are certain possible discrepancies between the research and development provisions of the Income Tax Act and in IAS 38.

7.6 DEDUCTIBILITY OF DEVELOPMENT COSTS AND THE RESEARCH AND DEVELOPMENT INCENTIVES: A SOUTH AFRICAN AND AMERICAN PERSPECTIVE

The final goal of the thesis was to explore the local and international (United States) taxation frameworks relating specifically to the development of software, in order to gain a perspective of the challenges faced regarding the deduction of expenditure incurred in the production of software. In order to do this the chapter discussed the South African position as well as the position in the United States.

The South African position illustrated the uncertainty that has been apparent throughout this thesis in respect of the treatment of software. The analysis focused specifically on section 11D and the requirements contained therein. The primary problem apparent from the section was the disclosure requirement when the Department of Science and Technology evaluates the research and development to be undertaken where it appears as if the requirement that the taxpayer has to disclose the nature of its research may adversely impact the protection which the taxpayer would ordinarily be afforded in terms of the Patents Act, which requires that any invention must not be disclosed prior to the registration of its patent. The secondary consideration is that the section appears to not allow for the deduction of software pertaining to management or internal business processes. This, while understandable on the basis that the purpose of the section is to encourage research and development which is intended to be commercially exploited and therefore shared publically, fails to recognise that even where software is developed for internal use there may still be significant advances in technologies and therefore ultimate gains in the advancement of technology.

The chapter then proceeded to analyse the position in respect of the taxation treatment of software in the United States. The analysis presents a comprehensive summary of the relevant authorities and deals with the genesis of the taxation dispensation in that country from 1984 to approximately 2009 being the years most pertinent to an analysis of the South African position. The most important conclusion apparent from this analysis is that there is no comprehensive taxation mechanism to deal with software notwithstanding that software has been a large part of the commercial world in that country since the early nineteen eighties. The analysis identified various

classifications of software, including the argument in respect of whether or not software was a tangible or intangible asset, whether or not software was a product or a service and the treatment of software which was bought versus software which was developed internally. Finally the analysis of the United States explored the deductibility of costs incurred in the development of software and set out the tests and requirements for such deductibility in the United States.

The chapter concluded that the nature of software is such that its dynamic character makes its accommodation in taxation frameworks difficult and that if software, and the expenditure incurred in developing it, is to be accommodated in those frameworks there will need to be a different legislative approach to taxation provisions seeking to accommodate, or encourage, the development of software. The most illustrative conclusion in this chapter is, however, that, notwithstanding the relatively long period within which the United States has been dealing with the relationship between software and taxation, the problems apparent in South Africa still appear to exist in the United States, indicating that there is to be no reprieve or significant advance in the taxation treatment of software in the near future.

7.7 CONCLUSION

South Africa finds itself now, in 2013, in the same position as the United States found itself in the 1980's in relation to the taxation treatment of software. As the United States may be considered the original breeding ground for software development, it is also worth noting that the position in relation to the deduction of expenditure incurred in the development of software in the United States has not been clarified completely to date albeit that the judicial guidelines and precedent that has been developed in the United States are more comprehensive and well-established than in South Africa.

Essentially there are two approaches to be followed in South Africa to determine the income tax consequences of the cost of the in-house development of software. The first is the application of the tests in respect of determining the capital or revenue nature of an asset. The first of these tests is the enduring benefit test, as enunciated in *British Insulated & Helsby Cables* case. The enquiry in this test is whether the expenditure is made, not only once and for all, but with a view to bringing into existence an asset or advantage for the enduring benefit of a trade and, where such is the case, the expenditure is best treated as capital in nature and not revenue. In

relation to software, this test is problematic as the dynamic character of software is such that the periods of what the test would refer to as *enduring benefits* relating to software are becoming shorter and shorter. This is not to say that there is no *relative enduring benefit* but that the relativity dictates that software must be analysed within in its own context and circumstances, as opposed to simply being considered analogous to other intangible assets.

The second of the tests relates to the accounting treatment of the expenditure incurred in the development of software, thereby allowing an outsider to gauge the taxpayer's intention as to the proper treatment of that expenditure. For example, one would be able to gauge whether software was considered capital if it were recorded as such on the balance sheet or revenue if it was recorded as such in the taxpayer's income statement. Industry interviews preceding this research pointed towards the adoption and application of International Accounting Standard 38, which stipulates the criteria to be met by assets in order to qualify as recognisable intangible assets. This standard classifies an intangible asset as one which is an identifiable non-monetary asset without physical substance. For the purposes of this research, and for the reasons enunciated earlier herein it has been accepted that software would fall within this definition, regardless of the medium upon which it is transported. This standard, however, may prove problematic in respect of the actual valuation of software as, where software is not to be sold, it is difficult to determine the value unless specific regard is had to the calculation of the inputs, or expenditure, outlaid in the production of the asset. This valuation is impossible unless meticulous records pertaining to employees' time sheets and other inputs are kept. There is, however, a certain degree of overlap between IAS 38 and the enduring benefit test.

In so far as the section 11D research and development deduction in South Africa is concerned it must be concluded that it is inadequate in relation to stimulating the software development industry in the country. The section was not, however, formulated with the intention of isolating or benefiting individual industries but, rather, to encourage innovation in the field of science and technology in the broader sense.

Essentially there is and, in the absence of legislative assistance, cannot be any uniform approach to the taxation treatment of software expenditure as a result,

primarily, of the dynamic nature of the product. The only other alternative is the acceptance that the period of enduring benefit of software must be recognised as being considerably shorter than any of its intangible counterparts. In accepting this alternative the benefit would favour the fiscus making it considerably more difficult for the taxpayer to argue in favour of any expenditure incurred in the development of software as being revenue in nature. This is already evident in SARS' Binding General Ruling No. 7 where the periods of depreciation are relatively short.

One of the conclusions of this research is perhaps one that renders the research itself redundant. At one of the industry interviews it was mentioned that there appears to be a trend leaning towards the concept 'software as a service'. This concept encapsulates "cloud computing", or "web 3.0" as it has been referred to. The industry is fast approaching a stage where companies, or consumers, are to be faced with a variety of external application software that will be available in the form of a service, purchased and paid for only to the extent to which it is used. In this manner the economies of scale presented by allowing large retailers of software to host client's services off site, thereby reducing the costs of both infrastructure and expertise, will begin to outpace the traditional approaches of either purchasing software out of the box or by creating it in-house. If the industry does, indeed, adopt this approach then the expenditure in respect of these services will be revenue in nature and the controversy surrounding this research will be redundant.

As section 11D has been amended to include expenditure claims in respect of business application software, where the software is to either be resold or licensed, developers will be able to utilise those provisions to claim the 150 per cent deduction in terms of the provisions of the Act. The difficulty relating to novelty will remain an issue. The nature of software development and the various algorithmic evolutions are such, however, that circumventing the novelty requirement should prove a minor challenge for those versed in the intricacies of the industry.

This research had as one of its goals a determination of the true nature of software and the income tax consequences associated therewith specifically in relation to whether or not it was revenue or capital in nature. The research has highlighted that a universal treatment is virtually impossible in that software is created to perform different functions in different environments and therefore enjoys different relationships with

both consumers and producers in different situations. Accordingly, to classify software as being either capital or revenue in nature as a general rule is incorrect and software must be evaluated in terms of the various tests set out in this thesis and regard must be had to the particular circumstances and characteristics of the software and its development.

Advances in software have been a leading driver in the advancement of business processes since its inception. Section 11D appears to fail to take cognisance of this fact and, while it includes references to software in its provisions, it fails to afford software development protection and incentives in order to truly stimulate both technological advancement in the software industry and the rendering of the South African taxation climate attractive to foreign investors seeking favourable environments in which to create software development companies.

The research has illustrated that the characteristics of software are not such that it can simply be brought within the framework of taxation legislation in its current form. This thesis has demonstrated that there is no certainty as to the taxation treatment of software and no niche within the taxation legislation within which software may be readily accommodated. Any accommodation which is to take place necessitates an in-depth analysis and evaluation of software so as to bring it, and the expenditure incurred in its production, within the confines of taxation legislation. This thesis makes no recommendation as to how the South African or international legislative frameworks may be amended so as to afford software favourable consideration and that task may form the basis of further research.

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