

The Traditional Multiplier-Multiplicand Approach

Massita Mohamad ¹⁺, Haslifah Hashim ¹ and Halim Khalid ²

¹ Centre of Actuarial Science, Universiti Teknologi MARA, Malaysia

² MNRB Holdings Berhad

Abstract. In Malaysian Civil Law Act 1956 there are clauses for those who were injured and died because of other's negligence. The victims or their beneficiaries are allowed to claim an amount that reflected the damages from the negligence party. The main objective of the clauses is to ensure the victim and their dependants will not be facing difficulty particularly in term of pecuniary. Loss of income is vital in calculating the compensation amount. It will definitely cause the family facing a heavy burden in maintaining their current living expenses. The Malaysian Civil Law Act 1956 is still be using by the court until now. However in the cutting edge some of the clauses need few improvements to make sure the clauses become more realistic and reliable. Currently Malaysia courts use the traditional Multiplier-Multiplicand Approach to calculate the compensation amount. Unfortunately there are some weaknesses that should be improved to guarantee the compensation amount adequate for the victim and their beneficiaries to live as good as if the wrong had not happen to them. In this paper, we will start with identifying the weaknesses of traditional Multiplier-Multiplicand Approach. Later all the weaknesses will be elaborated and supported by other researchers. Each of the weaknesses has a great impact towards the adequacy of compensation amount. Finally this paper will summarized all the weaknesses and suggest a solution to solve all the weaknesses.

Keywords: multiplier-multiplicand approach, weaknesses, personal injury, wrongful death, negligence

1. Introduction

Compensation is an award given to the wrong party as a punishment for the wrongdoer. Compensation is a worldwide issue. If a cosmetic company cause the client a huge side effect damage, the client can sue the company an amount of compensation or even if an employee was fired without strong reason and notice, the employer can be sued and if prove they did breach the contract they have to compensate the employee. It is the same for those who are unfortunately injured or dead because of others negligence. However to compensate a person is not an easy task. In Malaysia to compensate the beneficiaries, the courts use the Multiplier-Multiplicand Approach. It is a very simple method where the lawyers will multiply the multiplicand (annual loss of future earnings) with the multiplier. The product will be the compensation amount.

The traditional Multiplier-Multiplicand Approach;

Sum Award = Multiplicand * Multiplier

where

Multiplicand = Loss of Earning = Pre Injury Earning – Post Injury Earning

Multiplier = if the claimant's age 30 and below = 16

if the claimant's age 31 and 54 = (55- age at injury or death date)/2

Dublin and Lotka (1930) in their book explore the history of the money value of a man. The history started during the Pharaoh civilization. The history stated that slaves for labour slave were sold at the market.

⁺ Corresponding author. Tel.: + 60193602172/ +60162117753; fax: +60355435384.
E-mail address: massita1103@gmail.com

The price for each slave is actually a compensation for the seller. The cost of foods, cloth and shelter are considered for the compensation. Later in more expanding knowledge the value of man were calculated in broader view. They were valued by the level of him in the society, the contribution to the society and the importance of him to the society.

10 years back RM1 can be used to buy one burger but nowadays it cost at least RM2. Consumer purchasing power is dropping as inflation increasing. 10 years back Malaysia face the BLR up to 6% and the loan interest was really trouble the consumer. Presently car loan is just around 3% but back then the interest charged is around 7%. It is not reasonable for the compensation of future loss earning calculated by only multiplying the loss of earning with how many years left till the retirement age. Global economy is changing and we are following with the changes but to innocent who were wrongly injured or wrongly dead because of others' negligence get the old compensation calculation approach.

It would be a shame if the knowledge stagnant at one point without improvement. For this reason this paper will identify the weaknesses of the traditional Multiplier-Multiplicand approach and latter will discuss the enhancement that can be made to the method.

2. The weaknesses of the traditional Multiplier-Multiplicand Approach

2.1. Obsolete

Malaysia was conquered by British Army before the Queen Elizabeth give the self-governing to Malaysia. Basically law in Malaysia is mostly based on England common law. It is including the compensation method. Presently courts in Malaysia use the traditional Multiplier-Multiplicand Approach in the Malaysian Civil Law Act 1956. The act for the Multiplier-Multiplicand Approach is hardly enhancing since then. Malaysia has celebrated independence day for more than five decade and the method is actually can be seen as obsolete if there is no improvement to the method that supposedly can comprehend with current situation. For example retirement age in Malaysia. Up to 2011 government has made few amendments on retirement age in Malaysia. This year the government has increased the retirement age to 60 years old after increased it to age 58 few years back. The multiplier used the Civil Law 1956 is still 55 (because the retirement age at that moment is 55 years old). Government has implemented new retirement age but the act did not respond to the changes.

In 1984 the Government Actuary's Department, United Kingdom has published the first set of actuarial tables for personal injury and fatal accident cases compensation purposes. The set was solely depending on the mortality rate at that time. After the first set was published, the Government Actuary's Department has published up to sixth publication. Each set of publication has an improvement and updated based on current situation. When a new mortality table published, the committee will act in response with changes and updated the tables. The second set was published in 1994 where the committee included the contingencies other than mortality factor in the calculation. Then in 1998 United Kingdom published the new English Life Table and once again the committee reflect to changes and updated the set in the third edition. The tables itself is not enough to aid the lawyer, juries and judges. It is in 2000 when the committee decided that they should included the explanatory notes for the tables to ease the lawyers, juries and judges. In 2004 United Kingdom encounter that the people has improved in their life expectancy. Once again the tables were updated due to updated English Life Table data. Then the sixth edition was published in 2007. The updated edition reflects to new data for contingencies other than mortality. They concern on the education level, the likelihood of employment, disability and economic activity. The latest Ogden Tables published in 2011 due the mortality rates used in calculating the tables have been updated to those underlying the latest set of national population projections (the 2008-based) for the United Kingdom available at the time the Tables were prepared. The seventh edition also provides tables of multipliers at rates of interest from -2.0% to 3.0% (rising in steps of 0.5%). This change has been made because multipliers at negative rates are useful for the financial evaluation of periodical payments in the exercise which is required by the Damages Act in all cases for comparison with lump sums. The latest relevant research contributed by academician contributed by Professor Steven Haberman and friends. They consistently expanding the knowledge of the calculation of the compensation amount. Their reserches contributed a lot in the United Kingdom actuarial tables enhancement.

Research in Malaysia should also growing fast to make sure Malaysia does not left behind. The price of oil, the price of gold and others commodity are reflected with global changes that mostly influenced by United States and Europe. This is one of the proofs why the approach should also respond with current changes. United Kingdom without fail react with changes in the current situation. This is to minimize the arguement in the court and it will benefit all parties. The defendants does not have to pay more while the plaintiff can not ask for more than they should. As Malaysia following the England law, the enhancement also should be followed.

2.2. Uniformity

Often we see chefs produced their recipes book. Of course the main reason for them to publish the book is to sell it but why the consumers need to buy it if the ingredients are something that we can easily get and the recipes can be done with our own instinct. It is the taste that all of us look into in every cooks. For example: a recipe to make a pancake. It is really a simple and easy to be done but still the recipes produced in books, website and television. It is because the amount of bread used, eggs, baking powder, salt, water and temperature is the main important thing. Less salt will cause less taste. Different amount of ingredient will cause different result of taste. The same methods, ingredients ant temperature will almost accurately produced the same taste. The same problem occurs in determining the most accurate compensation award amount. Lawyers will do their homework by referring to previous cases to solved personal injury and death litigation cases in Malaysia. There are thousand cases out there and the lawyers have to choose cases that they want to refer. Different cases referred will result different award amount. Here an example: If a female age 32 died after being hit by a drunk driver, the beneficiaries bring the case to court. However if she is happen to be the first female claimant at age 32, the lawyers have to find the most resemble case to her. And for plaintiff's attorneys they will refer to the most high compensation award cases while it will be definitely conversely with the defendant's attorneys. The judges need to consider the reliability of the referring solved cases and then judge will match with the claimant's sued amount.

United States face a same problem with Malaysia. There are now looking forward to United Kingdom method. The United States also see a big issue in calculating tha award and Minnehan in his paper claim that this problem can lead to "jurisdiction shopping" because the attorney can bring and refer the case to district where the court has less perimeter on the award.

But it will be easier in United Kingdom court. They have a set of actuarial tables as their reference. The set is divided between gender and retirement age and it cover from the age of 0 till the age of 80. Therefore wherever the personal injury or death litigation cases bring to a court, all lawyers will have the same reference and standard information. For the courts it is easier to calculate the compensation award using a scientific and regulate method. It is important to have a standard reference when the case bring to the court.

2.3. Scientific Method

New knowledge is commonly argued for their reliability. An actuary is not a fortune teller but actuary is a professional that used scientific methods in solving future pecuniary losses. An actuarial table of set of multiplier is not just a copy of method from the United Kingdom. The improvement of the system is really a big topic. It cannot be sure that the new method is the accurate calculation, but it can be convinced will be as close as possible to accuracy. Currently Malaysia courts are only using a simple method to calculate the compensation amount. In contrast the United Kingdom approach uses a very scientific method. A committee made researches on various perspectives to be included in the multiplier. They considered the mortality of life, contingencies other than mortality, rate of return, inflation, age, gender, the level of education and many more. All of them are very important factors to look into to make sure the beneficiaries do not get an under award amount and as well over award. The beneficiaries have the right to enjoy their live with the same standard of living if the accident did not occur.

Mortality rate itself is really one of vital factors that must be considered in the calculation. Nowadays the mortality rate is increasing due to the advancement of technology in health and foods production. Education is now easily obtain following the government act that child below 17 years old must get an education at school for at least until they get Sijil Pelajaran Malaysia. For those who wish to further their study in tertiary

education, scholarship and loans are provided for them. With the new target of government to make sure by 2020 60% of the lecturers at the universities must have a PhD, the government have introduced to scheme to give allowance to those who pursue their postgraduate studies. The level of education will automatically effect their career advancement. Career advancement will consequently increase the salary earn. Career advancement is now proving as one of crucial components for the multiplier. All of the components are not simply added in the multipliers but research must be done to prove the influence of the components toward multipliers.

2.4. Professionalism

Lawyers are no doubt a professional in law field. Nevertheless loss of future earnings compensation calculation is not a calculation that can straightforwardly solved by a lawyer themselves. If the basis of the solving the matter is strong enough, it can reduce the number of appeal of litigation cases. But the number of appeal case is high corresponding to the number of case heard by district court. The calculation requires others' field of knowledge for instant actuarial knowledge and insurance company.

The development of the actuarial tables in United Kingdom is not an easy assignment. Albeit it is called actuarial tables, it is not solely depending on actuarial knowledge but of course the main knowledge comes from the actuary. The committee that responsible for the development the Actuarial Table: Personal Injury and Fatal Accident Cases were formed from a group of actuaries, law members and members from insurance company. For the committee they are an expertise in claim, personal injury and negligence area. Academicians are also an imperative contributor for the committee. The combination of both industrial members and academicians generated a more reliable and great new knowledge contributions to the country. They use the academicians' researches as the foundation and reference for the changes in the tables in their meeting.

The latest actuarial tables published in 2011 developed by a working party consist of George Russell, FIA (The Deputy Government Actuary), Professor Andrew Burrows QC (FBA Professor of Law, Oxford University (Formerly of The Law Commission)), Harvey McGregor QC (Invited by the Chairman), Rowland Hogg, FCA (Invited by the Chairman), Anthony Carus, FIA (Invited by the Chairman), Ian Sinho (Invited by the Chairman), Hugh Gregory, FCA (Invited by the Chairman), Michael Jarvis, FCA (Invited by the Chairman), William Latimer-Sayer, Barrister (Invited by the Chairman), Douglas Russell, Solicitor (Invited by the Chairman), Dr Victoria Wass (Cardiff Business School, Cardiff University (Invited by the Chairman)), Grahame Codd, Solicitor (Association of Personal Injuries Lawyers), Chinu Patel, FIA (Institute and Faculty of Actuaries), John Pollock, FFA (Institute and Faculty of Actuaries), James Campbell QC (Faculty of Advocates), Richard Methuen QC (Personal Injuries Bar Association), Simon Levene (Professional Negligence Bar Association), Alistair Kinley (Forum of Insurance Lawyers), Andrew Underwood, Solicitor (Forum of Insurance Lawyers), Graeme Garrett, Solicitor (The Law Society of Scotland), J W Bailie President (Law Society of Northern Ireland), Brendan Garland (General Council of the Bar of Northern Ireland), John Mead (NHS Litigation Authority), Adrian Gallop, FIA (Government Actuary's Department), Harry Trusted, Barrister (Secretary to the Working Party), and Cara Guthrie, Barrister (Assistant Secretary to the Working Party).

2.5. Inadequate

Compensation award is an amount to recover the beneficiaries' pecuniary loss to as close as possible to their financial position if the wrong did not happen. Adequacy is certainly one of the essential factors in determining the compensation award. By simply multiplying the multiplicand with multiplier without even care other contingencies will lead the calculation to inadequate. In *Soton Bili & Anor vs. Khajijah Led & Ors* [2008], the court calculated the loss of future as below:

Multiplicand : RM956 x 12 months
Multiplier : 10 years

Where

- (a) The court held that the plaintiff post injury earnings will be RM300 (her pre injury earnings is RM1,495. Therefore the loss of future earnings is RM1,495 minus RM300.

(b) The court deducted a further 20% as living expenses. Therefore : RM1,195 – 20%

(c) The plaintiff was 35 years old in 1999, therefore $(55-35)/2$

$$\begin{aligned}\text{The loss of future earnings} &= \text{RM}956 \times 12\text{months} \times 10 \text{ years} \\ &= \text{RM}114,720\end{aligned}$$

With RM114,720 it is barely adequate for her to survive for 10 years which after 10 years she is still young, she will be 45 years old. With the cost of living keep increasing, her value of money is decreasing. Because of that she probably need to ask for aid from government especially Ministry of Welfare. This will increase government expenses.

3. Conclusion

Compensation is an award given to the wrong party as a punishment for the wrongdoer. Compensation is a worldwide issue. Recently the compensation issue has draw government attention in a matter of adequacy. Deputy Finance Minister has made an announcement to increase the amount of compensation awarded for injury and death. The project is expected to complete in 2016. This paper has identified the weaknesses of the traditional Multiplier-Multiplicand Approach use by Malaysia court. Thus the government cannot simply increase the compensation without improving the weaknesses because if the weaknesses are still there, the problem will not solve by just increasing the compensation. The improvement must use the up to date research and data, make a standard table as reference, use scientific methods, discussed with expertise from various expertise but have the same concern and lastly the compensation must be adequate for the beneficiaries to sustain their standard of living should the accident did not occur. The Ogden Tables used by England's courts for personal injury and fatal accident cases can be a model to develop a better method for the calculation.

4. References

- [1] Dublin, L. I., and Lotka A. J. *The Money Value of A Man*. New York: The Ronald Press Company, 1930.
- [2] *Laws of Malaysia. Civil Law Act 1956*. The Commissioner of Law Revision, Malaysia, 2006.
- [3] Minnehan, R. Examples of "Schedules of Damages" Used in Europe and the United States. *Contemporary Studies in Economic and Financial Analysis*, pp 291-307, 2009.
- [4] Soton Bili & Anor vs. Khajijah Led & Ors [2008] 9 CLJ
- [5] *Actuarial Tables with Explanatory Notes for Use in Personal Injury and Fatal Accident Cases Seventh Edition*. Government Actuary's Department, United Kingdom, 2011.