

# **The Development of Insurance Agent Performance Management System: The Great Eastern Context**

by

Nur Syafiqa Binti Mohd Shahrudin

17943

Dissertation submitted in partial fulfillment of  
the requirements for the  
Bachelor of Technology (Hons)  
(Business Information System)

MAY 2015

Universiti Teknologi PETRONAS  
Bandar Seri Iskandar  
31750 Tronoh  
Perak Darul Ridzuan

# **CERTIFICATION OF APPROVAL**

## **Insurance Agent Performance Management System**

by

Nur Syafiqa Binti Mohd Shahrudin

An interim report submitted to the  
Business Information System Programme  
Universiti Teknologi PETRONAS  
in partial fulfilment of the requirement for the  
BACHELOR OF TECHNOLOGY (Hons)  
(BUSINESS INFORMATION SYSTEM)

Approved by,

Approved by,

---

(Savita A/P K. Sugathan)

Department of Computer Information Science  
Universiti Teknologi PETRONAS

---

(Dr Ena Bhattacharyya)

Department of Management & Humanities  
Universiti Teknologi PETRONAS

UNIVERSITI TEKNOLOGI PETRONAS  
TRONOH, PERAK  
JANUARY 2015

## **CERTIFICATION OF ORIGINALITY**

**This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.**

---

NUR SYAFIQA BINTI MOHD SHAHRUDDIN

## ACKNOWLEDGEMENTS

*“Praise to Allah, the most Gracious and the most Merciful”*

Alhamdulillah praises to Allah for the strengths and guidance that He gave to me to overcome all the challenges and problems in completing my Final Year Project . My deepest gratitude also to Him because with His blessings I can complete my interim report.

I would like to extend a special thanks to Computer Information Sciences (CIS) Department, who involved directly and indirectly in my report. I am definitely not forgetting my main supervisor, Mdm. Savita A/P K. Sugathan and co-supervisor, Dr Ena Bhattacharyya for providing me guidance during my Final Year period.

Last but not least, my credits go to my beloved parents, En. Mohd Shahrudin Bin Sulaiman and Pn Norihan Bt Md. Said together with my sister, Nur Atiqah for their endless love, prayers and encouragement. To those who directly involved in this project, your kindness means a lot to me. Thank you to all of you.

Regards,

Nur Syafiqah Binti Mohd Shahrudin

## **ABSTRACT**

This report discusses the research done on the chosen topic, which is Insurance Agent Performance Management System. This project shows that Performance Management System (PMS) is very important in any organizations to measure employees performance. In this context, PMS will be measure and focus in insurance industry as a general. The Insurance Agent Performance Management System will be developed for Great Eastern insurance branch, Sunder & Associates in Bangi, Selangor. As a well-known insurance company, managing insurance agents are very important and challenging to achieve some level of target. Due to that, PMS plays a vital role to helps insurance company to measure and evaluate insurance agent's performance. This report will define what is insurance and what is performance management system as a whole. Futhermore, it will described the cycle need to be done in order to manage PMS. The research methodology was done through interviews and brainstorming with the manager of S&A Associates. Through the interviews and analysis, it will define the system needs by the insurance branch.

## Table of Contents

<b>CERTIFICATION OF ORIGINALITY</b> .....	ii
<b>ABSTRACT</b> .....	iv
Chapter 1 .....	1
<b>INTRODUCTION</b> .....	1
<b>1.1 Background of Study</b> .....	1
<b>1.2 Problem Statement</b> .....	2
<b>1.3 Objectives</b> .....	3
<b>1.4 Scope of Project</b> .....	3
<b>1.5 Significant and Relevancy of Project</b> .....	3
<b>1.6 Feasibility of the Project</b> .....	4
Chapter 2 .....	5
<b>LITERATURE REVIEW</b> .....	5
<b>2.1 Introduction to Insurance</b> .....	5
<b>2.2 Performance Management System</b> .....	11
Chapter 3 .....	19
<b>METHODOLOGY</b> .....	19
<b>3.1 Project Methodology</b> .....	19
<b>3.2 Project Phase</b> .....	21
<b>3.3 Tools Development</b> .....	24
<b>3.4 UML Diagram</b> .....	25
<b>3.5 Gantt Chart</b> .....	25
Chapter 4 .....	27
<b>RESULT AND DISCUSSION</b> .....	27
<b>4.1 Data Collection and Research</b> .....	27
<b>4.2 Prototype</b> .....	29
<b>4.3 Testing</b> .....	33
Chapter 5 .....	37
<b>CONCLUSION</b> .....	37
<b>5.1 Relevancy to the Objectives</b> .....	37
<b>5.2 Suggested Future Works For Continuation</b> .....	38
<b>REFERENCES</b> .....	39

## **Lists of Figures**

Figure 1: Types of Insurance in Malaysia .....	8
Figure 2: Malaysia GDP Per Capita .....	10
Figure 3: Sample of Performance Scorecard.....	12
Figure 4: 360 Multirater Software .....	13
Figure 5: Multirater Feedback Results .....	14
Figure 6: PMS Cycle .....	16
Figure 7: PMS Cycle .....	16
Figure 8: Combination of RAD and Waterfall Model in the Development of Insurance Agent Performance Management System .....	20
Figure 9: Use Case Diagram .....	25
Figure 10: Gantt Chart for FYP I and FYP II.....	26
Figure 11: Project Timeline.....	26
Figure 12: Website Homepage .....	29
Figure 13: Login Page .....	30
Figure 14: Registration for New Agent .....	31
Figure 15: Registration for New Policyholder .....	32
Figure 16: Report.....	33
Figure 17: Analysis Result - User Friendly .....	34
Figure 18: Analysis Result - Informativeness .....	35
Figure 19: Analysis Result - User Feedbacks.....	35
Figure 20: Analysis Result - Overall .....	36

## **List of Table**

Table 1: Tools Development .....	24
----------------------------------	----

## **Chapter 1**

### **INTRODUCTION**

#### **1.1 Background of Study**

Today, insurance is very important and people must have this insurance because if there is anything happens to the person or policyholder, the family will get compensation (Insurance Info, 2009).

In insurance, Performance Management System (PMS) is one of the system that evaluate performance. In this project, insurance agents will be evaluate by using PMS and evaluation will be conducted by the manager based on the appointments, calls, number of sales and number of case closed.

In a similar context, PMS give opportunities to the insurance agents to challenge their abilities, talents and skills for example in managing prospects to get sales (Luthra & Jain, 2012). Moreover, PMS provides insurance agent and manager to have discussion to review the performance and discuss what need to be improve and what insurance agent had done. In this project, all the details required to evaluate performance will be filled by the secretary.



## 1.2 Problem Statement

- Lack of research paper and thesis on Performance Management System

Literature review need to be done and there is lack of information in the internet. The review of past research is very important to write a good literature for this topic.

- Sunder & Associates use manual practice which is by using Microsoft Excel format and manual filing.

S&A use manual practice which is Microsoft Excel to measure the performance of their insurance agent. Due to this, they have facing difficulties such as no update from the insurance agents, difficult to keep track their agent's progress and activities based on sales closed. Besides, they cannot generate analysis report from five years back in order to do a comparison of performance.

- Sunder & Associates used multiple system

Currently they are using E-partner system from Great Eastern headquarters but have several difficulties in dealing with the system.

### **1.3 Objectives**

**The following are the objective of the Insurance Agent Performance Management System:**

- To review past literature review and studies in order to understand the Performance Management System
- To design and develop a web-based system for Insurance Agent Performance Management System (IAPMS)
- To perform User Acceptance Testing (UAT) for IAPMS

### **1.4 Scope of Project**

There are consists of three (3) target users for this system which are insurance agents, manager and secretary. The secretary and manager can insert, update and delete their insurance agent's details and activities. The insurance agents only can view their performance through the generate report and in meeting.

Futhermore, this scope of project is focus on the Insurance Agent Performance Management System that will be develop and used by branch of Great Eastern insurance company, Sunder & Associates. This system will be develop in order to help the manager of S&A to measure the performance of his insurance agent by using web-based system.

### **1.5 Significant and Relevancy of Project**

The study on Performance Managemet System is important because nowadays any organizations are starting to measure performance of their employees. Insurance Agent Performance Management System will give benefits to the users because this system is web-based and can help the insurance agency to measure and evaluate the agent's performance.

The relevancy of this system is secretary can key in details required to measure insurance agent's performance and manager can monitor progress of his insurance agents.

Besides, PMS will access the insurance agents based on the sales closed and production. Moreover, agents will know what they have contributed and need to be improved. Insurance agents can view their performance based on graphs and analysis generated from the system.

## **1.6 Feasibility of the Project**

### **i. Time**

This project must be able to accomplish within the limitation of time which is around 28 weeks duration including FYP1 and FYP2. Resources and documents are still not enough and lack of information in terms of process flow of the current Microsoft Excel format.

### **ii. Scope**

Target users for this system are managers, secretaries and insurance agents of the Great Eastern branch – Sunder & Associates.

## **Chapter 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction to Insurance**

Insurance holds a critical element which is trust because involving a payment in advance for an unknown delivery in the future and the policyholder will not know what they will get. This element also can be called as an intangible good (Lester, 2009). However, it also act as an agreement between the insurance company and policyholders described that both parties are agree for the policyholders will pay amounts of money to the insurance company. Besides, insurance company will pay the cost if, for example the policyholders die or ill or damage due to some unavoidable causes (Steel, 2012). Insurance will pay for the losses incurred for example health or property or life based on the contract or the plan has been taken. In other words, the policyholders transfer the cost of loss to another party which is insurance company in exchange for the premium taken by the policyholders (Pareto, 2015).

According to The Commissioner of Law Revision (2013), Insurance Act 1996 mentioned that insurer is means any person licensed under this act. The purpose of applying an insurance is to reduce burden if there is something bad happen and the insurance company will be responsible to cover the losses but it will be based on the types of plan the insurer takes. Besides, the other studies had highlighted that insurance will help insurer to reduce burden if they are facing the loss of property in example by transferring the risk to the insurance company (Insurance Info, 2009).

### 2.1.1 History of Insurance

The practice of insurance was brought by British to Malaysia (formerly known as Malaya) because at that time, Malaysia was ruled by British (Soong, 1988). It has been supported by another study, that the origin history of insurance has been described that on the 18th to 19th century during colonial era, insurance company's named Harrison & Cross and Boustead used the British houses as their company (Trade Chakra, 2008).

In year 1955, local insurance market have been controlled by the foreign insurers because there is still no effort from the government and local people are not aware with the insurance matter.

In 1957, after Independence the government took initiatives by introducing the domestic insurance companies to the local people and in the early of 1960s, there is an achievement to the country because there are companies established. At that time, domestic insurance companies are given opportunities and encouragement to improve their strategies and market share but it end up with the companies leaving their policyholders due to improper underwriting practices (WealthLink Management Sdn Bhd, 2004).

However, due to lack of expertise in insurance industry there are some problems arrised during the development. In the crisis, the government enacting legislation of Insurance Act 1963 and now known as Insurance Act 1996 in order to strengthen the insurance industry in Malaysia (Trade Chakra, 2008).

## 2.1.2 Types of Insurance

There are several types of policies that people can choose in insurance industry and each of the policies have different plan or premium. However, the chosen policies will be based on people personal situation, age and lifestyle and what type of insurance needed for example health, retirement or education matters (Insurance Info, 2009). These are several common types of insurance in Malaysia.

### i. Life insurance

Life insurance is important when people or policy holder are suffering from illness or disability. Furthermore, insurance company will provide financial aid and bear the cost of the treatment based on the insurance plan. The policy holder will get some amount of money as compensation and can be used by policy holder's family if that particular person die.

### ii. Personal accident insurance

This will be paid if the policy holder become disabled due to an accident or if the policy holder die and they will get some amount of money based on the insurance plan taken.

### iii. Medical and health insurance

Insurance company will bear the cost of medical expenses including hospital room, fees and services if the policy holder are warded into hospital.

### iv. Houseowner / householder insurance

Policy holder will get money if their house or personal assets are damaged caused by flood, fire and other cases that include in the insurance plan and policy holder will be protect agaist claims made by the third parties due to some related cases.

### v. Motor insurance

If the policy holder's motor vehicle involved in an accident, they can claim due to the damage or losses.

There are two types of basic insurance which is life insurance that cover the policyholder by paying amount of money due to death of the individual who are insured. Besides, there is general insurance which cover and protect policyholder due to damages for example if the policyholder involve in an accident, insurance company will bear the cost of losses and damage (insuranceinfo, 2007). Table below is the lists of types of insurance in Malaysia.

<b>Life Insurance</b>	<b>General Insurance</b>
Whole Life Plan	Motor Insurance
Endowment Plan	Fire / Houseowners / Householders Insurance
Term Assurance Plan	Personal Accident Insurance
Investment-Linked Insurance Plan	Medical and Helth Insurance
Life Annuity Plan	Travel Insurance
Medical and Health Plan	

**Figure 1: Types of Insurance in Malaysia**

Insurance is divided into two groups which are Islamic insurance known as takaful and conventional insurance (M. Hamid, Ab Rahman, Ya'amob, & Yakob, 2010). In takaful insurance, it consists of three (3) principles including mutual responsibility, co-operation with each other and protecting one another from any kind of difficulties which is the premium is based on *tabarru'* concept means a donation and contribution (M. A. Hamid, Osman, & Nordin, 2009). Takaful is under the rules and requirements of Syariah.

The conventional insurance is when the insurer agreed to pay the insured in some amount of money to the premium taken with the insurance company. Conventional insurance does not conform it is under Syariah requirements because it involves of some inconclusive elements for example uncertainty and interest in the insurance contract (Mohamad Bin Abdul Hamid, 2008).

Eventhough there are two different types of insurance, both of the insurance have same objectives in helping to minimize and reducing financial burden due to accidental or disaster occured to the policyholder.

Futhermore, insurance policies have four (4) types of life insurance policies including term insurance, whole life insurance, endowment insurance and investment-linked insurance (Manulife Malaysia, 2009).

From the recent studies, it can be concluded that, there are two (2) types insurance in Malaysia which are conventional insurance that is consist of life insurance and islamic insurance that consist of takaful insurance. However, both of the insurance have the same purpose and objectives.

### 2.1.3 Insurance In Malaysia

Insurance industry in Malaysia is being supervise by the Bank Negara Malaysia (The Central Bank) and each of the insurance companies in Malaysia need to registered with Bank Negara Malaysia.

There are six (6) Statutory Insurance Associations in Malaysia consists of Persatuan Insurans Am Malaysia (PIAM), Life Insurance Association of Malaysia (LIAM). Malaysian Takaful Association (MTA), National Insurance Association Of Malaysia (NIAM), Malaysian Insurance And Takaful Brokers Association (MITBA), Association of Malaysian Loss Adjusters (AMLA), (Persatuan Insurans Am Malaysia, 2013).

Insurance company is one of the important industry that helps economy to grow better in terms of development especially in Malaysia (Kasturi, 2006). It has been supported by another study mentioned that insurance is one of the partial and support the national well-being and have high opportunity to grow because of growing in population and economic fundamentals in Malaysia (Abdullah, 2014).

Starting on 1st April 2015, Malaysia Government will implement 6% for Goods and Services Tax (GST) including in certain insurance plan and LIAM has started identified the issues and consequences facing in future (Diyana Ibrahim, 2015; Life Insurance Association of Malaysia, 2014). GST will be charged only for policy



fees while premiums for investment-linked policies will not be charged (FMT Reporters, 2015). Premiums that will not be charged are whole life plan, endowment plan, term assurance plan and mortgage plan.

There are several studies mentioned that Gross Domestic Product (GDP) per capita is the most important to determine the factors that affected insurance industry. Recent studies mentioned that insurance should be align with the human capital development and the level of income (Beck & Webb, 2003) because it will affect the development of insurance industry itself. This study has been supported by Chau & Khin (2013) stated that higher income will directly affected the insurance industry because demand will be higher. In year 2013, GDP per capita in Malaysia was at USD 6990.25 since it was last reported which means it is equivalent to 55 percent of the world’s average (“Malaysia GDP per capita,” 2015). As the result, it has been proved that GDP is important to support the insurance industry in Malaysia. Figure 2 below is the graph shown for the GDP in Malaysia.



**Figure 2: Malaysia GDP Per Capita**

## 2.2 Performance Management System

Performance can be defined as how well a person does a piece of work or an activity according to the job scope given by someone or an organization (Cambridge Dictionaries Online, 2015). Performance is very important to each of the employees in any industries because it shows how effective and productive that employees to achieve organization and individual's goals.

Performance Management System (PMS) is a system that evaluate performance of employees based on criteria defined by an organization. It is a process whereby to support the effectiveness and to ensure the employees will do the job or task efficiently (Praveena A/P Kunaratnam, 2011). Another study stated that PMS is the process to help employees to create a work environment and shows their abilities in performing the job given (Urvashi Singh, 2012). In this study, it shows that three level of positions consists of top management, managers or supervisors and employees have their own roles and responsibilities in order to evaluate performance.

In any industry regardless automotive, education and insurance, performance management system is very important to measure the performance of employees that including of performance appraisal and employees development. A recent survey done by Watson Wyatt resulted with three out of ten employees are agree that performance management system installed by their organizations perform successfully by measuring their performance goals and feedback. Due to the lack of percentage which is only 40 percent out of 100, it showed that poorly designed performance management system lead to the decreasing number of employees used the performance management system. As a result, business needs, culture and other integration system should be analyze before implement PMS in as organization (Pulakos, 2004).

In India, PMS was failed due to the doubt of employees towards the system because the employees does not know the importance and how far the system evaluate their good performance. The employees are disrespect their superiors and derives to have no faith with the PMS due to lack of good relationship and communication among them. Based on the recent study, it mentioned that senior employees who had worked almost three to ten years feel that PMS is not relevant in an organization (Luthra & Jain, 2012).

### 2.2.1 Types of PMS

There are several PMS software in market for example balanced scorecard and periodical review of performance (Kasturi, 2006). Periodical review of performance is important in order to measure and keep track activities done by the employees. Figure 3 below shows a sample of Performance Scorecard.

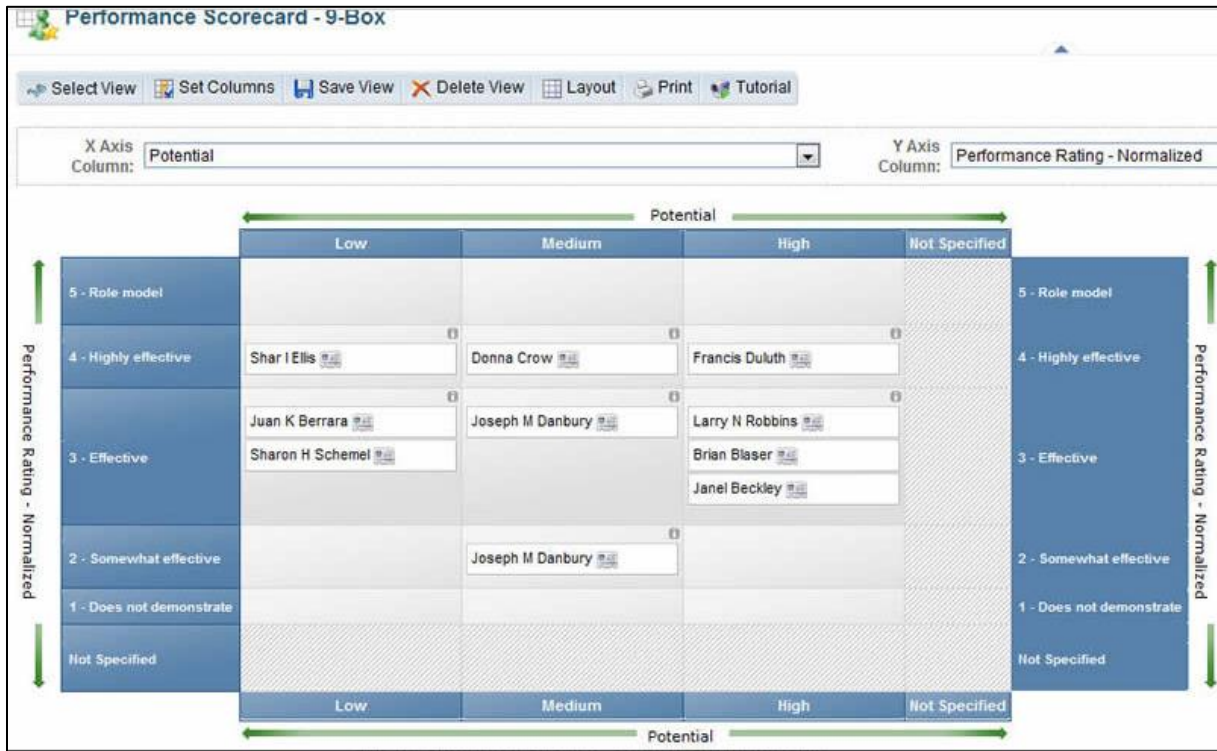


Figure 3: Sample of Performance Scorecard

Source: <http://www.peoplefluent.com/performance-management-system>

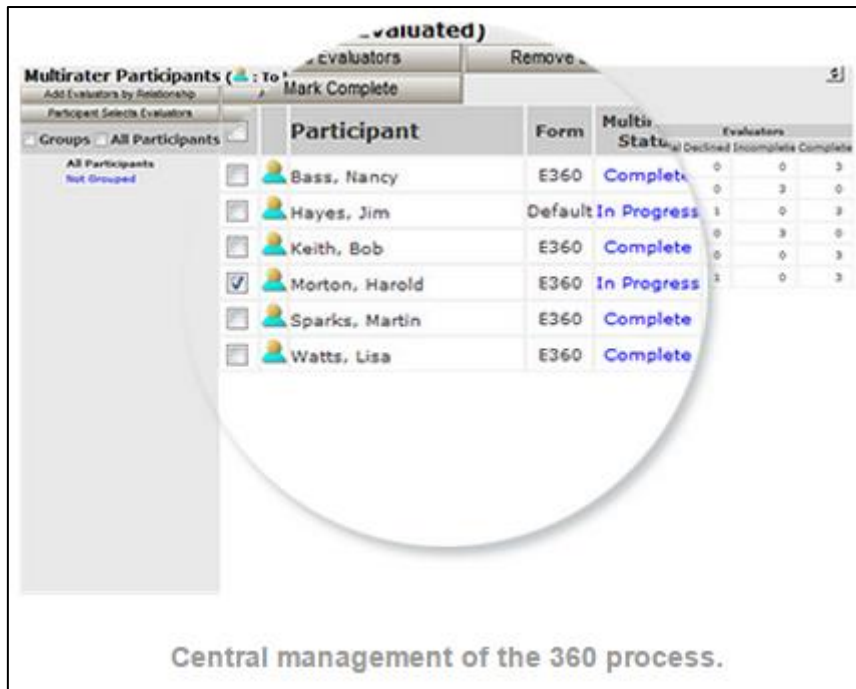
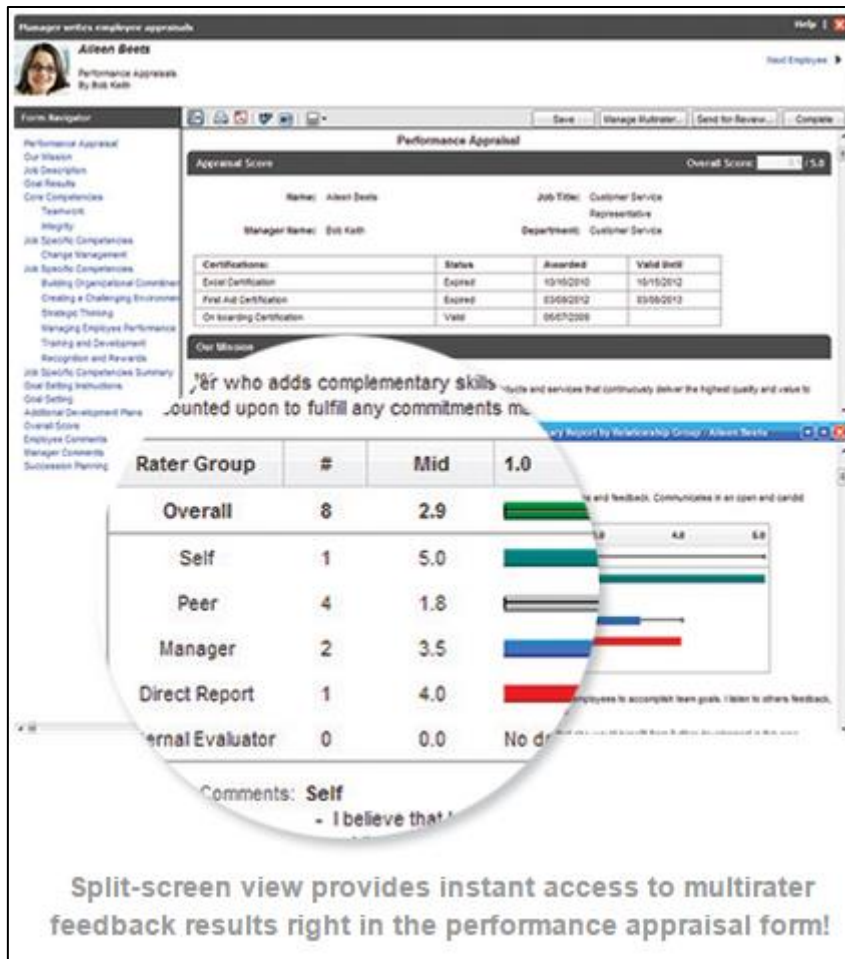


Figure 4: 360 Multirater Software

Source: <http://www.halogensoftware.com/ae/products/360-feedback/features>

Figure 4 above shows the assessment controlled by human resource department based on the email notifications and reporting structure. The assessee can choose their own evaluators and feedback on competencies.



**Figure 5: Multirater Feedback Results**

Source: <http://www.halogensoftware.com/ae/products/360-feedback/features>

In this form, feedback result, process and summary rating will be determine by HR in order to ensure the results confidentiality. Besides, employees can choose to comments in appraisal form and view multirater result.

### 2.2.2 Key Performance Indicator (KPI)

A Key Performance Indicator (KPI) measures on how an organization is achieving the goals aligned with the objectives of an organization (Klipfolio, 2014). Measuring the performance can be evaluate by Key Performance Indicator (KPI) in order to achieve specific goals whether for individual or an organization (Schoeffler & Oak, 2014). Both studies had mentioned that KPI can measure performance by setting level of goals and objectives achievement for each employees. There are several ways to measure KPI for example based on the sales growth for an individual or team. Besides, based on the phone call and appointments for insurance industry. KPI is the way to have a clear understanding in order to success and achieve goals of individual or an organization.

There is a study mentioned three types of KPI in insurance companies including return on investment ratios, leverage, and interest rate risk (Cross, 2015). However, a study stated lists of KPI based on sales including of number of phone calls, size of sales, number of referrals and case closed which are give impacts to the individual performance in insurance industry (Schoeffler & Oak, 2014).

### 2.2.3 PMS Cycle

There are consists of several steps or cycle in order to perform Performance Management System (PMS) and each organizations have different kinds of cycle. In similar context, insurance industry also practice PMS in their organization. PMS is a process whereby the managers will work and discuss together with employees to plan, monitor and review an employee's work and whether it achieve goals or not and also the contribution to the company itself (Hrcouncil.ca, 2008). Below is the sample of PMS cycle that include of plan, monitor and review and evaluate. Each of these stages have their own task and must be completed by the managers and employees in order to evaluate the performance.

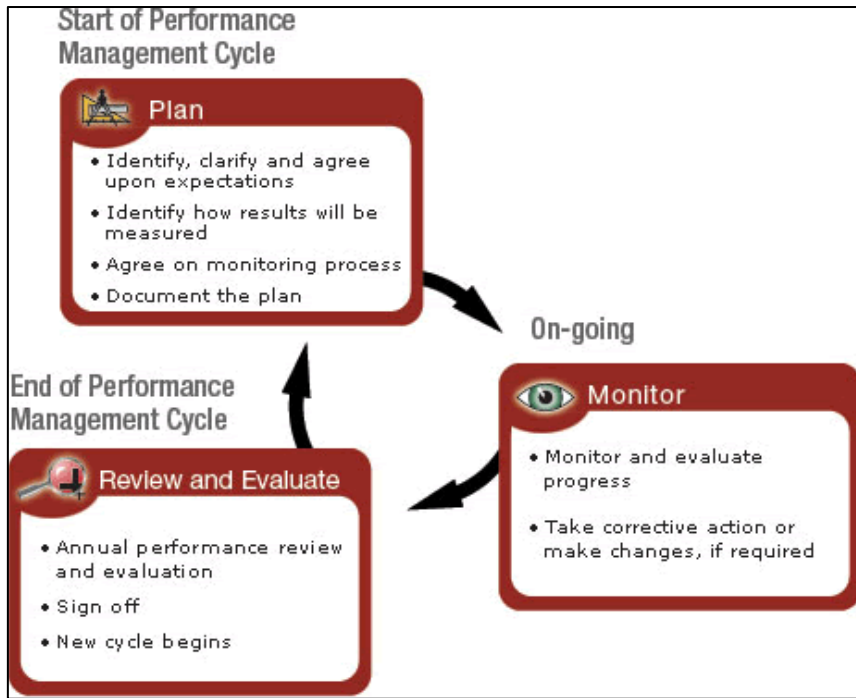


Figure 6: PMS Cycle

Source: <http://hrcouncil.ca/hr-toolkit/keeping-people-performance-management.cfm>



Figure 7: PMS Cycle

Source: <http://www.treasury.govt.nz/publications/guidance>

PMS cycle consists of four (4) stages which are planning, implementation, reporting and strategy and development (The Treasury, 2013). However, another study mentioned that, it consists of three (3) stages including plan, monitor and review (Hrcouncil.ca, 2008). Based on the recent studies, it can be concluded that PMS cycle include of several stages which are planning, monitoring, review and evaluation. Based on the two figures mentioned before, planning, monitor and review are the most important stage in order to perform PMS.

However, in insurance industry, it consists or four (4) steps in Performance Management Cycle which are planning, monitoring, developing, rating (Praveena A/P Kunaratnam, 2011). It is the combination of stages based on these two figures mentioned before.

In planning, coopertion between manager and insurance agents are very important to get good outcome in terms of performance and relationship. Insurance company should set their performance expectation and indicators for individuals or groups to achieve. The involvement of employees in planning will lead to the successful of the company because employees will know what to do, how it measure their performance and why it is important to be done.

In monitoring, case closed by the insurance agents need to be monitored consistently because it will give impact towards their performance during performance analysis. Ongoing monitoring will reduce percentage of problems occur during the evaluation. Insurance agents will have time to correct it before rating levels are assigned to them. Besides, conducting feedback reviews can help insurance agents to analyze what they need to do in order to achieve target that have been set by the insurance company.

In developing, training,consultation and meeting are important regardless by individual or team. It is important to introduce new skills and abilities to encourage insurance agents be more productive and effectives. Moreover, as a result, insurance agents can polish their job-related skills and learn of new technology for example.



In rating, insurance company has to analyze and evaluate insurance agent's performance by giving a rating based on the criteria given. It is based on the work performance for example increasing of case closed and the rating will be given according to the procedures and guideline of insurance company.

#### 2.2.4 PMS for Insurance Industry

Performance Management System is important to insurance industry and also to other business organizations. There are several new PMS in insurance industry such as Balanced Scorecard (BSC), SMART system and Activity Based Cost System (Ak & Öztay\Csi, 2009).

In insurance industry nowadays, balanced scorecard is the most effective tool to measure the performance. Dr. Robert Kaplan and David Norton was the creator of balanced scorecard and it is still be using until today by private and public sector (Pryor, 2013). The balanced scorecard helps insurance industry to monitor and keep progress of the achievement and ensure the insurance company are achieved goals and objectives monthly, quarterly and yearly. Futhermore, it also helps insurance industry to monitor performance of the employees in insurance company and measure the performance achievement.

## **Chapter 3**

### **METHODOLOGY**

#### **3.1 Project Methodology**

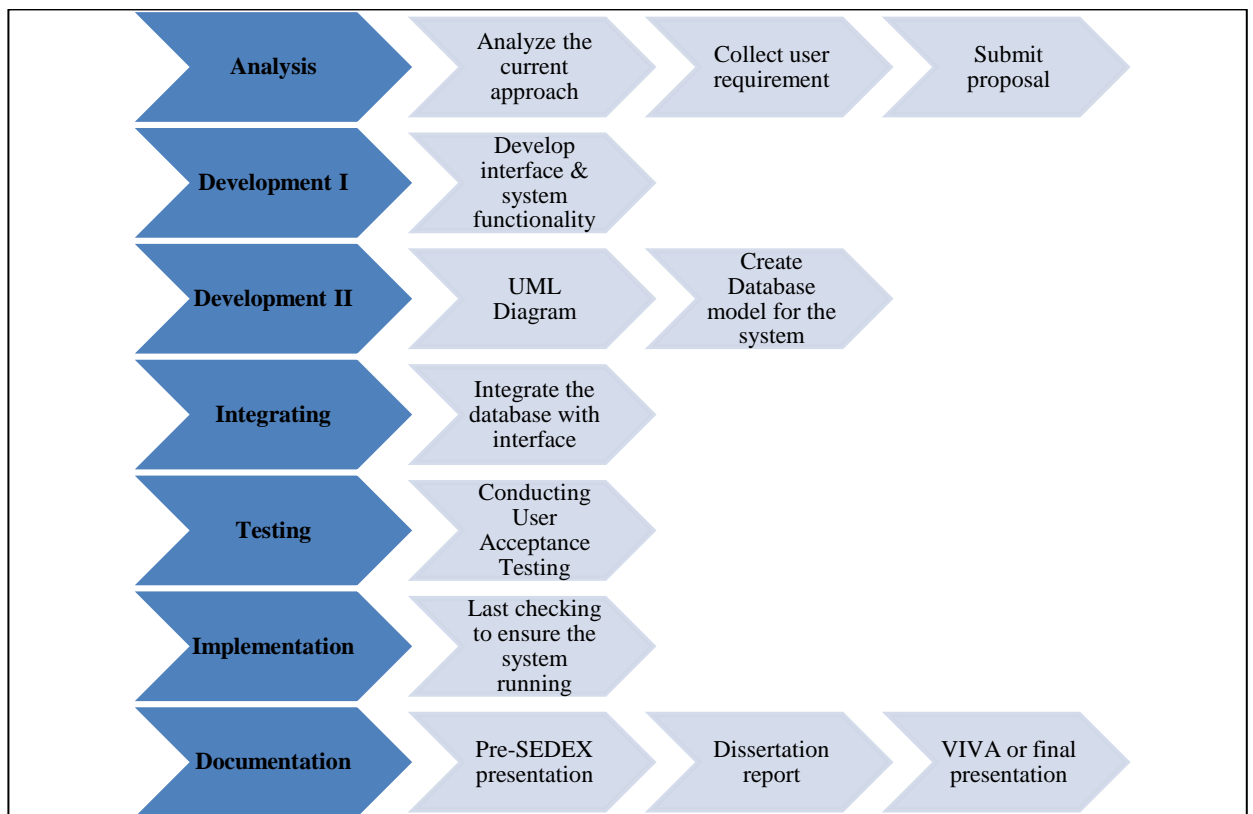
This chapter will cover the explanation of project methodology that will be used in order to complete this project development. In developing Insurance Agent Performance Management System, the type of methodology to be used is a combination of Rapid Application Development (RAD) and Waterfall model. Since this project needs to be completed within 7 months or 28 weeks, RAD is the most suitable method to develop the application because RAD is practicing a concept where the product can be developed faster and of higher quality.

In this project, system testing is a crucial part in order to develop a working application. Hence, it is predicted to face a lot of difficulties, bugs and error during the development process. The developer will be able to find the issues, root causes of error and then fix the problem during the testing phase even though by using RAD as the type of methodology,

RAD could help in reducing the development cost of this project as it provides flexibility to completely develop the system within small budget allocation. To satisfy the needs of user in the future or improve the application's features, the developer needs to modify and enhance the application. Therefore, by applying RAD the developer can reduce the complexity of the system at the same time do the changes faster and more efficient.

By applying RAD in the development process, there are six (6) main phases:

- i. Analysis
- ii. Development I and Development II
- iii. Integrating
- iv. Testing
- v. Implementation
- vi. Documentation



**Figure 8: Combination of RAD and Waterfall Model in the Development of Insurance Agent Performance Management System**

## 3.2 Project Phase

### 3.2.1 Phase 1: Requirement Analysis

In this Insurance Agent Performance Management System (IAPMS) project, requirement analysis is important in order to capture the purpose and objectives of this project. The developer will analyze and discover the user requirements and important features to be developed in the application. The user requirements will help developer to design and develop the system for this project. In this phase, user requirements are based on interviews conducted during the collection of user requirements.

During this phase, the developer who created the design now generates code using the PHP and MySQL. End users are also participating during the design and development process in order to get feedback and review.

- Outcome
  - i. A definition of the system's scope
  - ii. Functions in the IAPMS is being finalised and design development will start.
  - iii. Proposal being submitted to the Supervisor, Mdm. Savita A/P K. Sugathan

### 3.2.2 Phase 2: Development I & II

Development I is focusing on interface development such as designing and system functionalities. Meanwhile, Development II is focusing on database development and UML diagram.

The database program chosen for this project are MySQL and PHP. Moreover, for interface development, HTML, javascript and CSS will be used in developing the system. Designing the interface is one of the crucial part because the end user request to have a simple interface. This step is focus on designing interface and overall system functionalities of this system and it is very important in order to create a user-friendly system. It is including design a storyboard and Graphic User Interface (GUI) sample.

- Outcome
  - i. UML Diagram
  - ii. Preliminary layout of interface
  - iii. Storyboard and Graphic User Interface (GUI)
  - iv. The system build using the PHP and MySQL

### 3.2.3 Phase 3: Integrating

During integrating phase, the programming language chosen should integrate the user interface with the database and have connection between them. Due to that, combination of PHP, MySQL, HTML, Javascript and CSS was chosen.

- Outcome
  - i. Integration of interface with database

#### 3.2.4 Phase 4: Testing

The testing phase in IAPMS will be conducted by developer and user in order to check if there is any errors occurred and to ensure users satisfaction. After designing and integrating the interface and writing the programming language to prove that the system successful, the next step is to make sure that the program is working as per expected. Therefore, User Acceptance Test (UAT) will be held to test the functionalities of the system.

- Outcome
  - i. Design has been finalized
  - ii. User Acceptance Test will be held

#### 3.2.5 Phase 5: Implementation

The system will be installed and be used by secretary and manager of the branch company. Monitoring and maintaining the database system need to be done regularly. Monitoring will be focus on the performance of the system. If the system need improvement, so the developer would apply some possible improvement to the system so that it meets the required specifications.

- Outcome
  - i. The new system been implemented
  - ii. Installation and maintenance

#### 3.2.6 Phase 6: Documentation

Documentation phase including to prepare Interim report, Dissertation and presentation. Thus, several presentation packs need to be created for presentation.

### 3.3 Tools Development

To develop this project, there are several tools and requirements needs to be filling to run the system. The most fundamental one is personal computers with Windows platform, 1 GB RAM (minimum), 80 GB hard-disk space, including 115 MB of available space on the hard disk that contains the operating system. Other minimum requirement and tools required also being stated as follows:

<b>Function</b>	<b>Tools</b>
<b>Research for suitable database program</b>	<ul style="list-style-type: none"><li>• Google Chrome and printed thesis</li></ul>
<b>Presentation of the implementation plan and ideas / presentation</b>	<ul style="list-style-type: none"><li>• Microsoft Power Point 2010</li></ul>
<b>Gantt's Chart for project planning</b>	<ul style="list-style-type: none"><li>• Microsoft Power Point 2010</li></ul>
<b>Database Development and Interface Design</b>	<ul style="list-style-type: none"><li>• MySQL, JavaScript, HTML, CSS</li></ul>
<b>Programming Language</b>	<ul style="list-style-type: none"><li>• PHP</li></ul>
<b>Documentation and report writing</b>	<ul style="list-style-type: none"><li>• Microsoft Word 2010</li></ul>

**Table 1: Tools Development**

### 3.4 UML Diagram

Figure 9 below shows the use case diagram of Insurance Agent Performance Management System

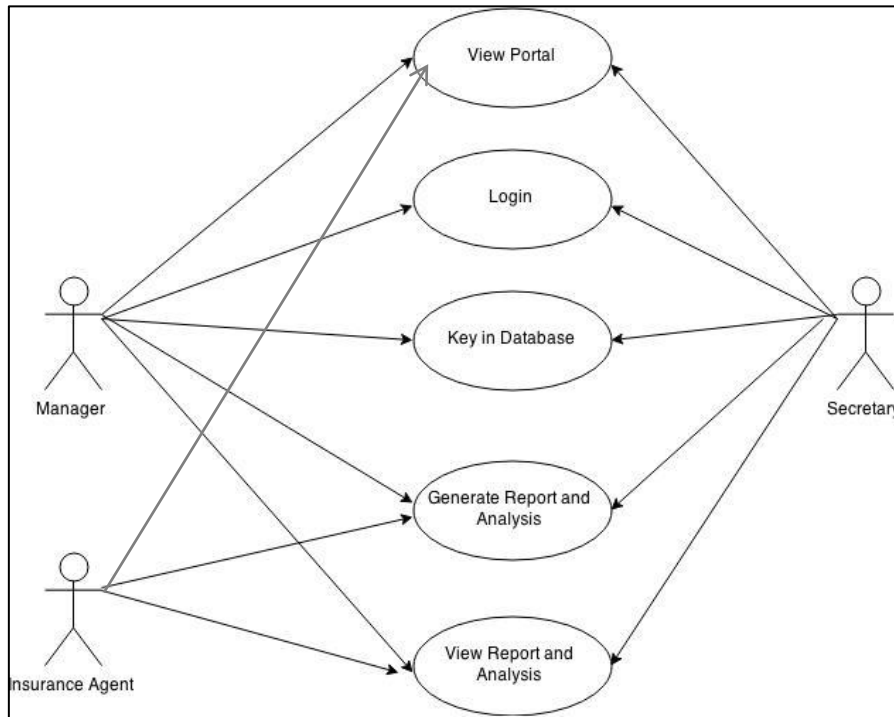


Figure 9: Use Case Diagram

### 3.5 Gantt Chart

A Gantt chart was created in the beginning, but after experiencing a number of unpredictable roadblocks, more rapid development model has been adapted in this project.

GANITT CHART FYP I														
ACTIVITIES	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Selection of Project Topic	█	█												
Preliminary Research work		█	█	█										
Submission of Proposal			█	█	█	█	█	█	█	█	█	█	█	
Further Study on Research Matter				█	█	█	█	█	█	█	█	█	█	
Conduct Interview									█	█	█	█	█	█
Interface Design										█	█	█	█	
Submission of Interim Report												█	█	
Proposal Defence													█	█



GANTT CHART FYP II														
ACTIVITIES	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Project Work Continues	█	█	█	█	█	█	█							
Submission of Progress Report					█	█	█							
Project Work Continues								█	█	█				
Pre-SEDEX										█	█			
Submission of Technical Paper										█	█			
Submission of Dissertation (soft-bound)											█	█		
Oral Presentation												█	█	█
Submission of Project Dissertation														█

Figure 10: Gantt Chart for FYP I and FYP II

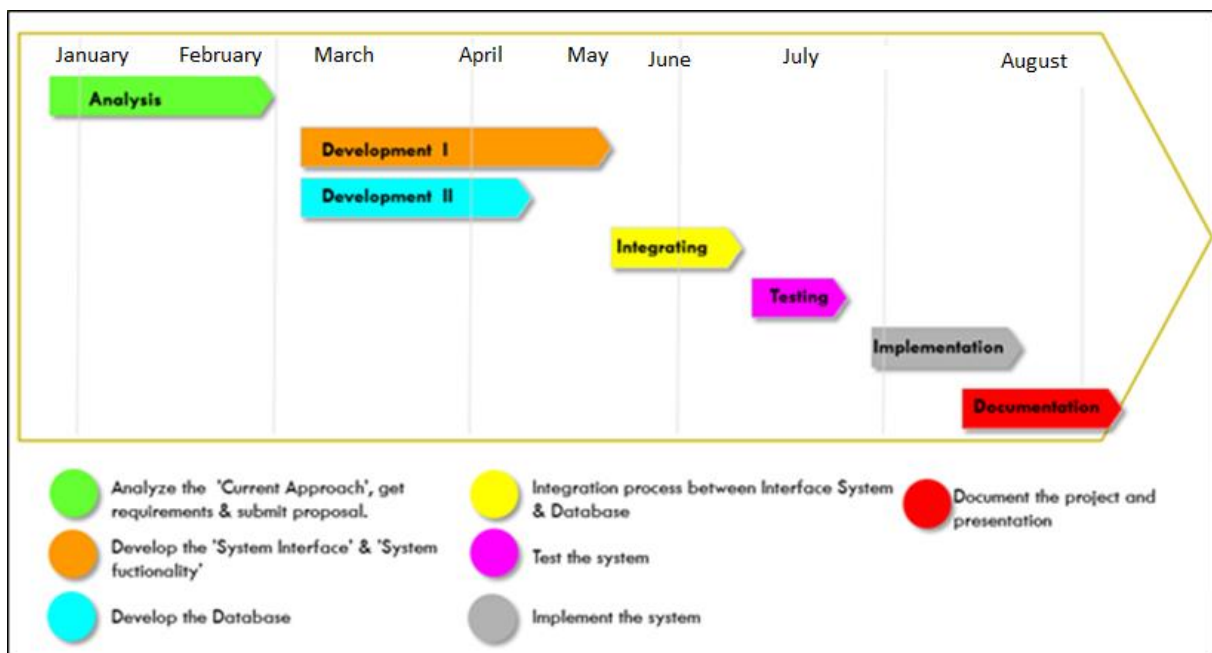


Figure 11: Project Timeline

## **Chapter 4**

### **RESULT AND DISCUSSION**

#### **4.1 Data Collection and Research**

##### 4.1.1 Literature Review Findings

From literature review research, the findings are:

- Performance is very important in any industries to evaluate employees in the form of a team or individually.
- Performance will be evaluated based on criteria defined by an organization.
- It helps employees to create a good work environment.
- Besides, it will increase the level of skills and talents.
- 3 out of 10 employees agree to implement PMS in their organization.

#### 4.1.2 Interview Findings

Interview findings from Mr. Sunder Arunasalam, Group Sales Manager in Sunder & Associates located in Sentral Business Park, Kajang, Selangor.

- Currently, he has 10 – 12 insurance agents under his supervision in Sunder & Associates.
- As for now, insurance agent's performance is analyzed in the form of team and individually.
- They will conduct a weekly meeting or once in two weeks and they will review on sales, case closed, appointments and progress for each of the insurance agent.
- Each of insurance agent needs to achieve sales target. The higher sales achieved, the higher commission they will received.
- At branch level, they are using excel format only to key in any data and activities of insurance agents.
- When using E-Partner (GE headquarter) Insurance agents have no disciplines to use the existing systems and currently secretary will key in all the case closed and related data. Besides, no updates from insurance agents and secretary has difficulties to keep track the performance.
- Currently, they are using Excel format and very simple. The secretary will key in details of policyholder, agent's name together with their production achievement for every month. Then, they will generate a graph to be used in the meeting or review time with insurance agent.

## 4.2 Prototype

### 4.2.1 Homepage

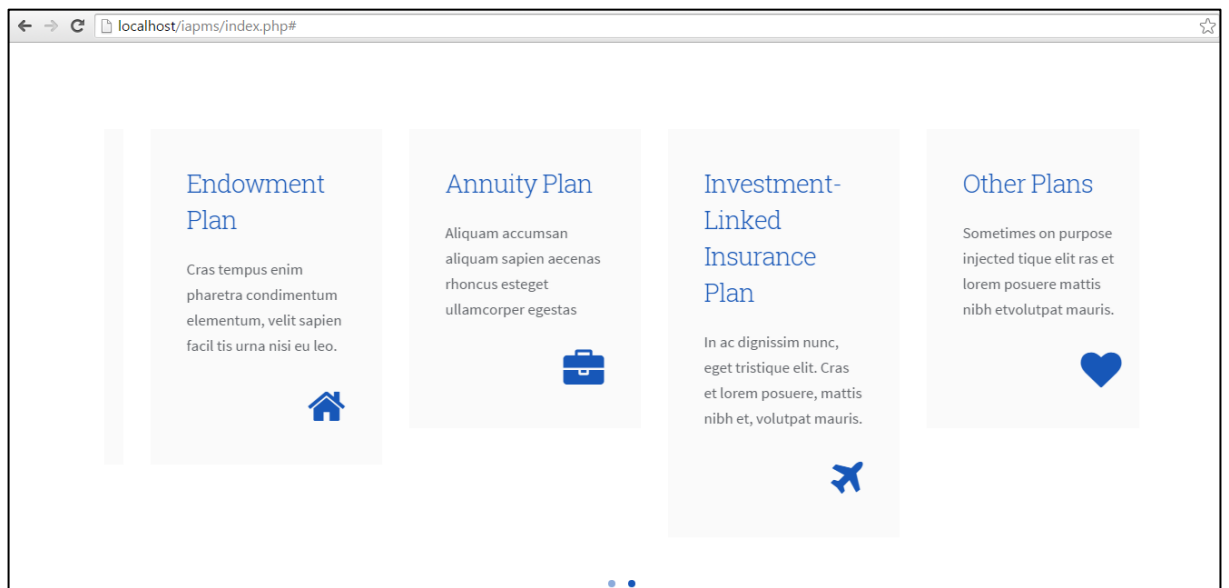
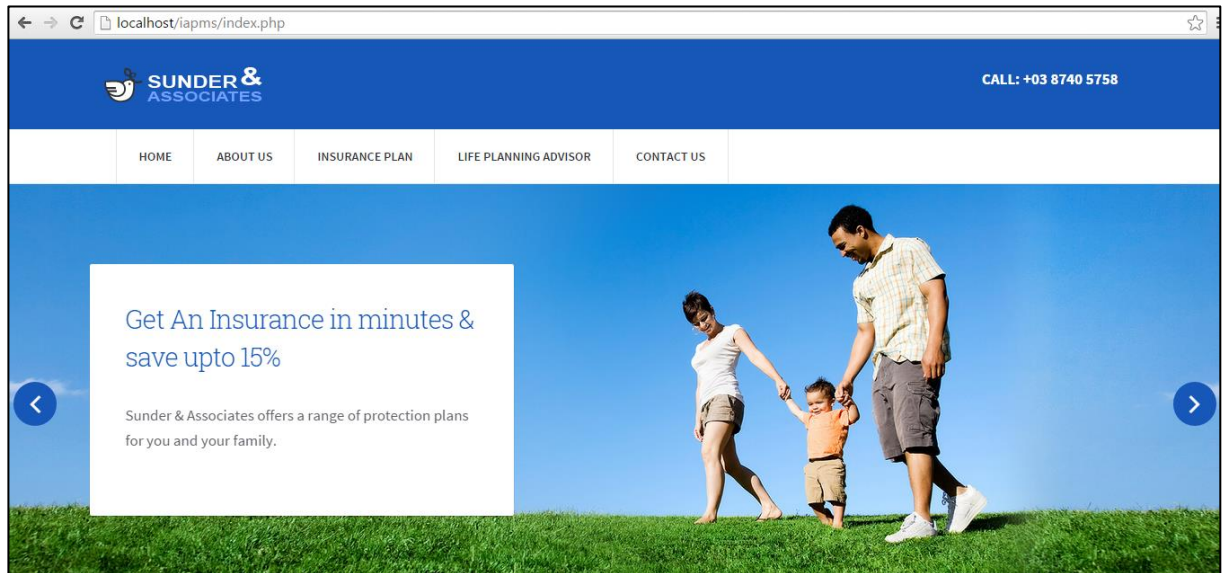
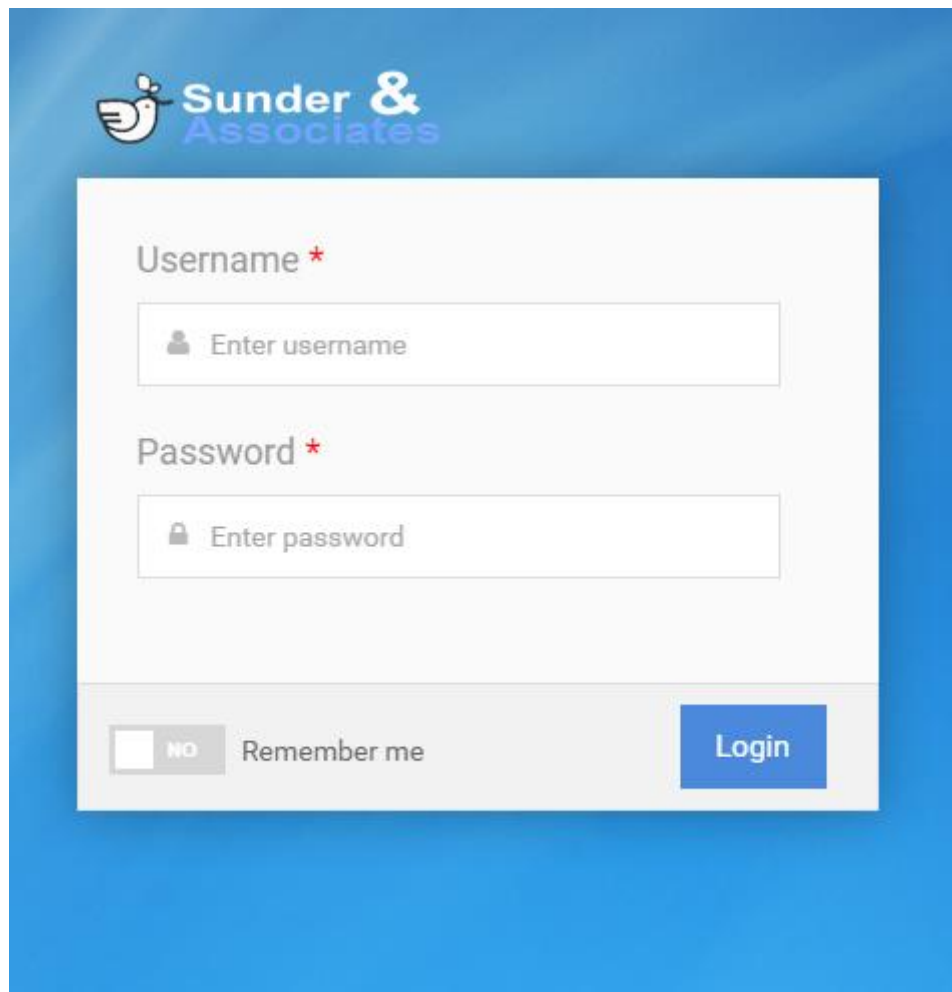


Figure 12: Website Homepage

## 4.2.2 Login Page



**Sunder & Associates**

Username \*

Enter username

Password \*

Enter password

NO Remember me

Login

Figure 13: Login Page

### 4.2.3 Registration for New Agent

**Sunder & Associates** | Search... | Malay | secretary

**Agent**  
**Policy**  
**Report**

Create Agent

Fields with \* are required.

Name \*

Agent No

No Ic

Birth Date

Phone

Email \*

Start Working

Create

**Sunder & Associates** | Search... | Malay | secretary

MENU  
Dashboard  
Agent  
Policy  
Report

Home / Agent / Manage

Manage Agents

Advanced Search | Create New

Displaying 1-10 of 12 results.

No	Name	Email	No Agent	
1	sunder	info@sunder.com	SNA0000001	
2	barathi	info@barathi.com	SNA0000002	
3	radhika	info@radhika.com	SNA0000003	
4	helena	info@helena.com	SNA0000004	
5	devendran	info@devendran.com	SNA0000005	
6	yugesh	info@yugesh.com	SNA0000006	

Figure 14: Registration for New Agent

## 4.2.4 Registration for New Policyholder

**Sunder & Associates** | Search... | Malay | secretary

**Agent**  
**Policy**  
**Report**

**Create Policy**

Fields with \* are required.

No \*

Holder \*

Life Assured \*

Commencement Date \*

Premium Due Date \*

Last Payment Date \*

Premium Amount \*

**Sunder & Associates** | Search... | Malay | secretary

**MENU**  
**Dashboard**  
**Agent**  
**Policy**  
**Report**

Home / Policies / Manage

**Manage Policies**

Displaying 1-7 of 7 results.

No	Name	Commencement Date	Premium Due Date	Last Payment Date	Premium Amount	
1113344	client	2015-07-01	2015-07-07	2015-07-27	1231412.00	
1113345	ahmad	2015-07-15	2015-07-21	2015-07-13	23241.00	
1113346	ahmad	2015-07-14	2015-07-21	2015-07-16	2123124.00	
1113347	ziana	2015-07-21	2015-07-20	2015-07-20	123124.00	
1113348	rona	2015-07-14	2015-07-21	2015-07-07	2333344.00	
1113349	viny	2015-07-06	2015-07-28	2015-07-21	443355.00	

**Figure 15: Registration for New Policyholder**

## 4.2.5 Report

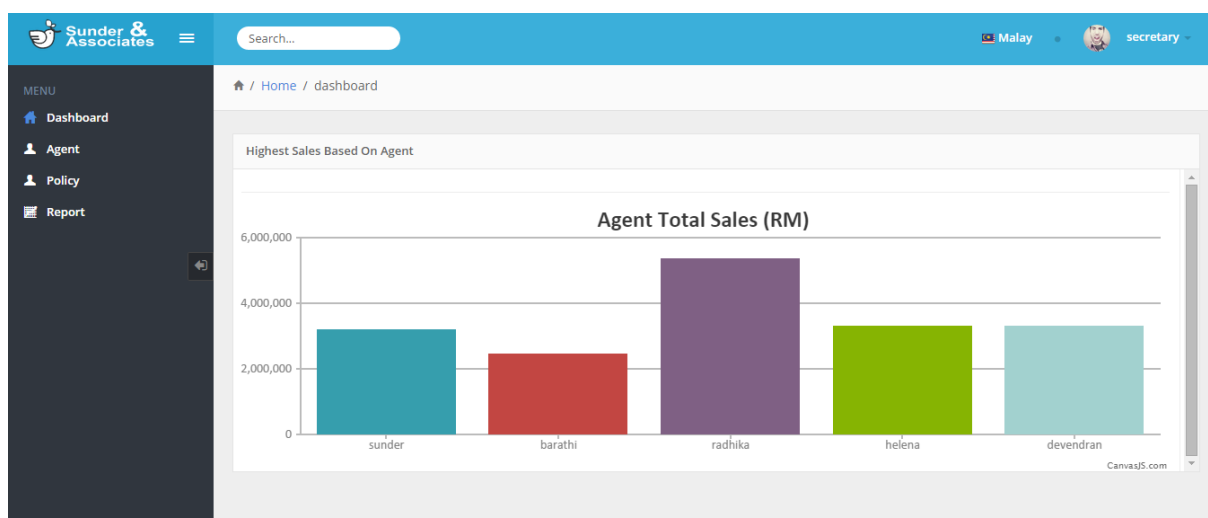


Figure 16: Report

## 4.3 Testing

Testing and debugging are totally 2 different things. Developer should not be confused with both because testing involves a process of finding “unknown” errors while debugging is a process of removing “known” errors. The primary objective of testing is to find errors in an application, whether it satisfies the requirements and or performing other than expected. This might involve initial and actual output a developer might expect. In contrast, the objective of debugging is to identify the type and location of the “found” errors and subsequently remove it by a re-definition, re-design or re-code, depending on the level of testing through which the errors were found.

For Insurance Agent Performance Management System, Unit Test, Integration Test, and Acceptance Test had been conducted by the developer. Unit Test is a process of testing the individual components in an application. It is done only by the programmers without involving testers, in order to ensure that the unit does not contradict with the system’s internal specifications. Different units being tested in isolation simultaneously and it is performed during the development phase. By reviewing the code, database, requirements and design, the debugging tasks much easier as it only involves a single unit and when an error is found, the error should be located within that particular unit.



Besides, the incompatibility of the interfaces between the system's components can be tested via Integration Test. Testers and programmers worked together during this phase. This test involves design and architecture of the system to ensure the interfaces and linkages between different functions of the system work properly.

Acceptance Test is done primarily by the end users to demonstrate is totally complete, meets the users' requirements and ready to be released. Therefore, developer had selected 4 testers to test the system. However, developer will conduct test with another testers to get accurate result. In order to have a complete Acceptance Test procedures, developer carried out three different phases.

Firstly, the general overview of the application being briefed by the developer to the testers. Then, the system being given to them so that it can be tested. After they were done conducting the testing, the developer will take note their suggestions or attitudes towards the tested system. Based on the result of the testing, the developer was be able to identify the usability of the system to them.

Lastly, survey form as attached in the Appendix being given by the developer to the testers which required them to fill in as a feedback about the system. For the betterment and improvement of Insurance Agent Performance Management System, all of the results being used and analysed. Below are the results of the testing.

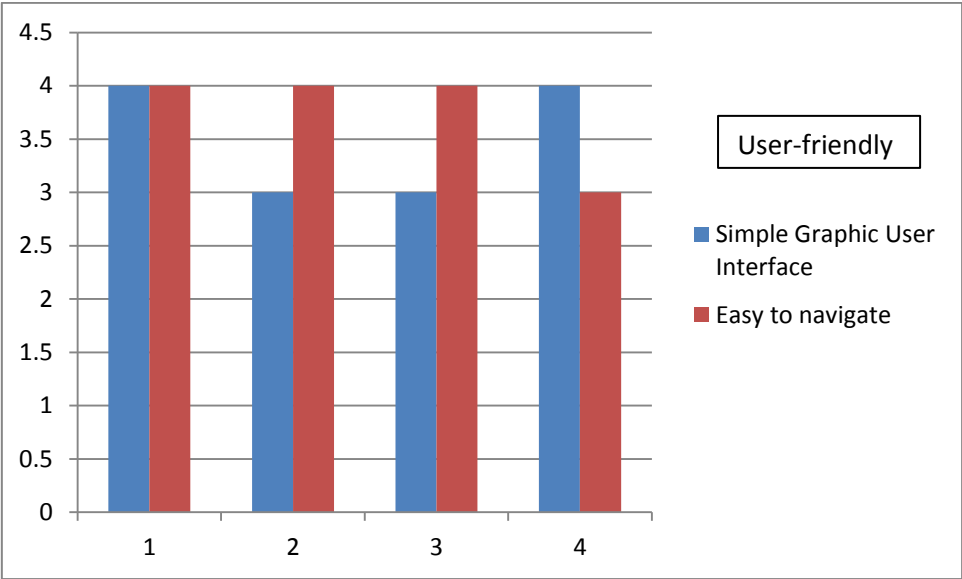


Figure 17: Analysis Result - User Friendly

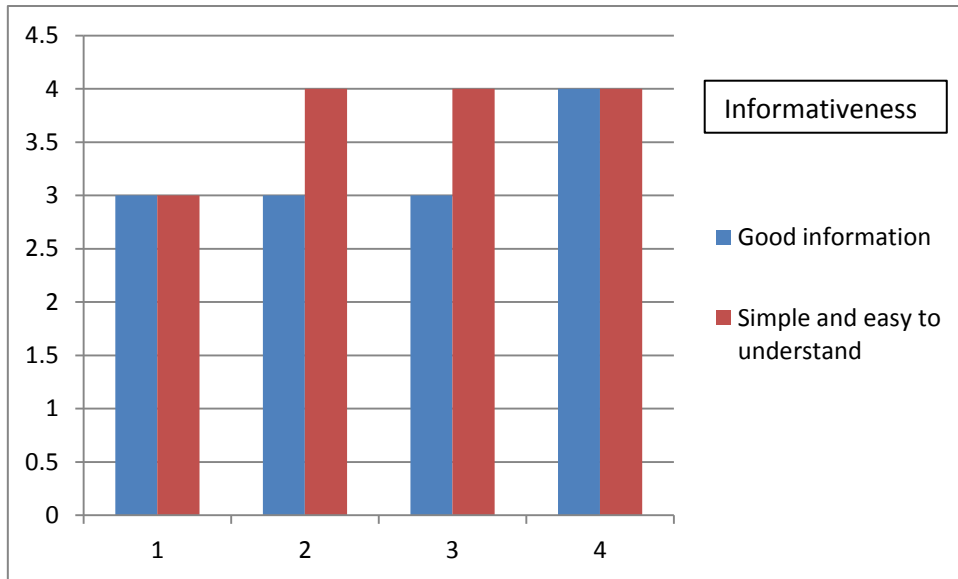


Figure 18: Analysis Result - Informativeness

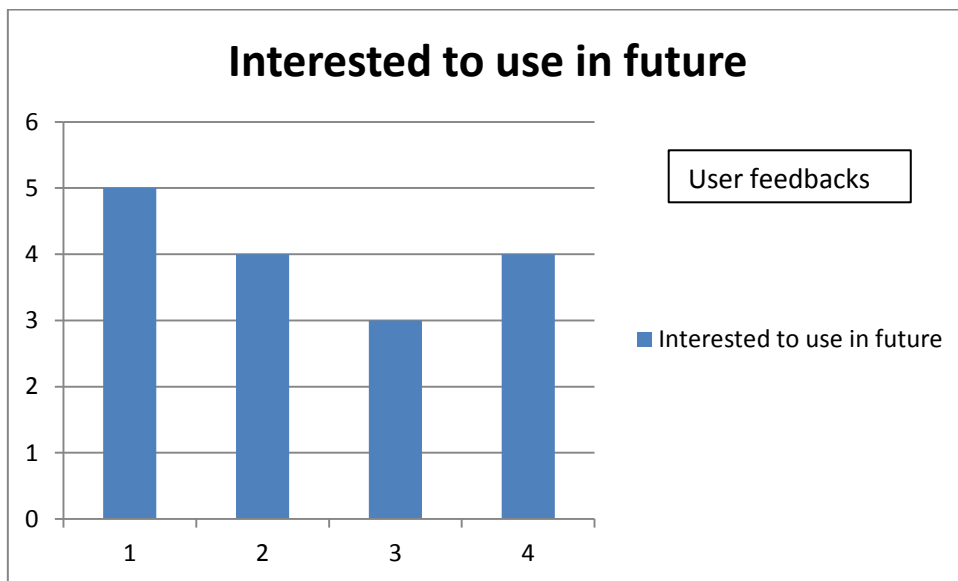
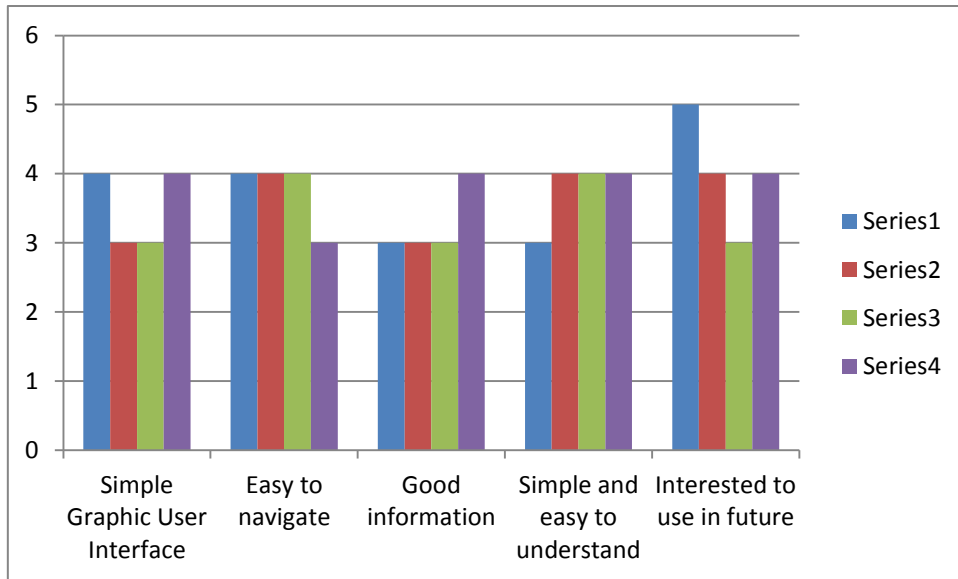


Figure 19: Analysis Result - User Feedbacks



**Figure 20: Analysis Result - Overall**

## **Chapter 5**

### **CONCLUSION**

#### **5.1 Relevancy to the Objectives**

There are three objectives of this project:

- To review past literature review and studies in order to understand the Performance Management System
- To design and develop a web-based system for Insurance Agent Performance Management System (IAPMS)
- To perform User Acceptance Testing (UAT) for IAPMS

First objective is to review past literature review and studies in order to understand the Performance Management System is relevant because research and literature review are very important to have deep understanding about the topic covered which is PMS. Based on the past studies, the literature review can be done in order to get the overview from several research paper or thesis done before.

Second objective is to design and develop a web-based system to help manager to monitor his insurance agents. Prototype has been described in chapter 4 – Result and discussion part.

Third objective is to perform User Acceptance Testing that have been done in testing part.

## **5.2 Suggested Future Works For Continuation**

Improvements can be made regarding this project via several recommendations. However, some factors must be put into considerations before proceeding with the next stage so that the improvements in certain aspects can be done, instead of changing this project as a whole.

In FYP I, interviews and meetings will be done frequently after the submission of the interim report. During this stage, proposed design will be show to the group sales manager of Sunder & Associates and do several brainstorming and consultation with the manager.

Besides that, the amount of time given should be extended because this system can truly contribute to money-making website. To gauge how perfect the system can be within the time frame is very difficult because the requirements are so challenging. It is because, time given to do interviews and surveys are limited.

As conclusion, Insurance Agent Performance Management System can be upgrade by adding related function for example can linked with the headquarter Great Eastern portal. Each of the branch should has their own portal and system. Moreover, it will give positive view to Great Eastern as a whole.

## REFERENCES

- Abdullah, T. N. S. T. (2014, September 4). High Growth Potential For Insurance industry In Malaysia. *Bernama Banking & Finance*. Kuala Lumpur. Retrieved March 12, 2015 from <http://www.bernama.com/finance/news.php?id=438053>
- Ak, R., & Öztay\Csi, B. (2009). Performance Measurement of Insurance Companies By Using Balanced Scorecard and ANP. *Istanbul Technical University, Istanbul*. Retrieved March 24, 2015 from [http://www.isahp.org/2009Proceedings/Final\\_Papers/2\\_AK\\_Ronay\\_BalancedScorecardandANP\\_REV\\_FIN.pdf](http://www.isahp.org/2009Proceedings/Final_Papers/2_AK_Ronay_BalancedScorecardandANP_REV_FIN.pdf)
- Atahualpa. (2015). Waterfall Model - Advantages, Examples, Phases and more about software development. Retrieved March 26, 2015, from [www.waterfall-model.com](http://www.waterfall-model.com)
- Beck, T., & Webb, I. (2003). Economic, demographic, and institutional determinants of life insurance consumption across countries. *The World Bank Economic Review*, 17(October), 51–88. doi:10.2307/3990045
- Cambridge Dictionaries Online. (2015). Definition of Performance. Retrieved March 28, 2015, from <http://dictionary.cambridge.org/dictionary/british/performance>
- Chau, W. H., & Khin, A. A. (2013). *General Insurance Consumption Model For Economic Development in Malaysia*. Universiti Tunku Abdul Rahman (UTAR) and Multimedia University (MMU). Retrieved March 12, 2015 from [http://www.academia.edu/3858805/General\\_Insurance\\_Consumption\\_Model\\_for\\_Economic\\_Development\\_in\\_Malaysia](http://www.academia.edu/3858805/General_Insurance_Consumption_Model_for_Economic_Development_in_Malaysia)
- Cross, D. (2015). Key Performance Indicators Insurance Companies. Retrieved March 25, 2015, from <http://smallbusiness.chron.com/key-performance-indicators-insurance-companies-71236.html>
- Diyana Ibrahim. (2015). Insurance Premium Subjected to GST, says Putrajaya. Retrieved March 25, 2015, from <http://www.themalaysianinsider.com/malaysia/article/insurance-premiums-subjected-to-gst-says-putrajaya>
- FMT Reporters. (2015). No GST for life insurance. Retrieved March 19, 2015, from <http://www.freemalaysiatoday.com/category/nation/2015/03/09/no-gst-for-life-insurance/>
- Hamid, M. A., Osman, J., & Nordin, B. A. A. (2009). *Determinants of Corporate Demand for Islamic Insurance in Malaysia*. Universiti Kebangsaan Malaysia. Retrieved March 24, 2015 from [http://www.academia.edu/6953597/Determinants\\_of\\_Corporate\\_Demand\\_for\\_Islamic\\_Insurance\\_in\\_Malaysia](http://www.academia.edu/6953597/Determinants_of_Corporate_Demand_for_Islamic_Insurance_in_Malaysia)

- Hamid, M., Ab Rahman, N. M., Ya'amob, N. I., & Yakob, R. (2010). Performance determination model of human capital development for takaful industry in malaysia. *The Journal of Knowledge Economy & Knowledge Management*, V FALL, 141–151.
- Hrcouncil.ca. (2008). Performance Management. Retrieved March 3, 2015 from <http://hrcouncil.ca/hr-toolkit/keeping-people-performance-management.cfm>
- Insurance Info. (2009). Your Guide on Fundamentals of Insurance and Takaful, 3–9.
- insuranceinfo. (2007). Basic Types of Insurance. Retrieved March 26, 2015, from [http://www.insuranceinfo.com.my/learn\\_the\\_basics/types\\_of\\_insurance.php?intPrefLangID=1](http://www.insuranceinfo.com.my/learn_the_basics/types_of_insurance.php?intPrefLangID=1)
- Kasturi, R. (2006). Performance management in insurance corporation. *Journal of Business Administration Online*, 5(1). Retrieved March 24, 2015 from <http://jbao.atu.edu>
- Klipfolio. (2014). Key Performance Indicators - Definition. Retrieved March 29, 2015, from <http://www.klipfolio.com/resources/articles/what-is-a-key-performance-indicator>
- Lester, R. (2009). Introduction to the Insurance Industry Introduction to the Insurance Industry, (1). Retrieved February 22, 2015 from [http://siteresources.worldbank.org/EXTFINANCIALSECTOR/Resources/282884-1242281415644/Introduction\\_to\\_Insurance\\_Industry.pdf](http://siteresources.worldbank.org/EXTFINANCIALSECTOR/Resources/282884-1242281415644/Introduction_to_Insurance_Industry.pdf)
- Life Insurance Association of Malaysia. (2014). *LIAM\_AnnualReport\_2014\_Final.pdf* (p. 17). Retrieved March 12, 2015 from [http://www.liam.org.my/pdf/LIAM\\_AnnualReport\\_2014\\_Final.pdf](http://www.liam.org.my/pdf/LIAM_AnnualReport_2014_Final.pdf)
- Luthra, P., & Jain, M. (2012). India's Performance Management Problem. *Business Journal*. Retrieved March 24, 2015 from [http://www.gallup.com/businessjournal/153278/India-Performance-Management-Problem.aspx?utm\\_source=position4&utm\\_medium=related&utm\\_campaign=tiles](http://www.gallup.com/businessjournal/153278/India-Performance-Management-Problem.aspx?utm_source=position4&utm_medium=related&utm_campaign=tiles)
- Malaysia GDP per capita. (2015). Retrieved March 10, 2015, from <http://www.tradingeconomics.com/malaysia/gdp-per-capita>
- Manulife Malaysia. (2009). Types of Insurance Policies. Retrieved March 25, 2015, from <http://www.manulife.com.my/life/Pages/PopularQuestions.aspx#04>
- Mohamad Bin Abdul Hamid. (2008). Determinants of Corporate Demand for Islamic and Conventional Insurance in Malaysia, 1–2. Retrieved March 24, 2015 from <http://lib.iium.edu.my/mom2/cm/content/view/view.jsp?key=RMzb93dqWu6TtNgTYouIlgGrAdVfDZ2r20090601152704234>
- Pareto, C. (2015). Intro To Insurance: What Is Insurance? Retrieved March 30, 2015, from <http://www.investopedia.com/university/insurance/insurance1.asp>
- Persatuan Insurans Am Malaysia. (2013). What are the statutory insurance associations in Malaysia? Retrieved March 24, 2015, from <http://www.piam.org.my/index.php/2013-10-02-02-14-23/what-are-the-statutory-insurance-associations-in-malaysia>

- Praveena A/P Kunaratnam. (2011). *The Study On Factors Influencing Performance In General Insurance - A Case Study Of An Insurance Company In Kuala Lumpur*. Open University Malaysia.
- Pryor, J. (2013). Insurance Innovation - Balanced Scorecard. Retrieved March 24, 2015 from <http://www.irmi.com/expert/articles/2013/pryor12-insurance-industry-quality-improvement.aspx>
- Pulakos, E. D. (2004). Performance Management.
- Schoeffler, B., & Oak, C. (2014). Creating a Key Performance Indicator (KPI). *Insurance Journal*. Retrieved March 24, 2015 from <http://www.insurancejournal.com/magazines/features/2014/08/18/337934.htm>
- Soong, G. (1988). The history of insurance in Malaysia, p. 9. Retrieved March 12, 2015 from <http://news.google.com/newspapers?nid=1309&dat=19881002&id=vWJPAAAIBAJ&sjid=cJADAAAIBAJ&pg=3333,325818>
- Steel, M. (Ed.). (2012). *New Oxford Dictionary* (2nd ed., p. 446). Oxford Fajar Sdn. Bhd.
- The Commissioner of Law Revision, M. (2013). Act 378 STAMP ACT 1949, (January), 16. Retrieved March 16, 2015 from <http://www.agc.gov.my/Akta/Vol. 8/Act 378.pdf>
- The Treasury. (2013). Guidance and Instructions on the Public Sector Performance and Financial Management System. Retrieved March 16, 2015 from <http://www.treasury.govt.nz/publications/guidance>
- Trade Chakra. (2008). Insurance Sector in Malaysia. Retrieved February 28, 2015 from <http://www.tradechakra.com/economy/malaysia/insurance-sector-in-malaysia-168.php>
- Tutorialspoint. (2010). SDLC RAD model. Retrieved March 4, 2015, from [www.tutorialspoint.com/sdlc/sdlc\\_rad\\_model.htm](http://www.tutorialspoint.com/sdlc/sdlc_rad_model.htm)
- Tutorialspoint. (2014). V-model design. Retrieved March 3, 2015, from [www.tutorialspoint.com/sdlc/sdlc\\_v\\_model.htm](http://www.tutorialspoint.com/sdlc/sdlc_v_model.htm)
- Urvashi Singh. (2012). An Overview of Performance Management Systems and Review Process. Retrieved March 24, 2015, from <http://www.slideshare.net/joeyvprice/an-overview-of-performance-management-systems-and-review-process>
- WealthLink Management Sdn Bhd. (2004). History of Insurance in Malaysia. Retrieved March 25, 2015, from <http://www.wealthlink.com.my/index.php?option=content&task=view&id=4&Itemid=27>



# APPENDIX

Question	Respondent 1	Respondent 2	Respondent 3	Respondent 4
<b>User-Friendliness</b> Strongly Disagree 1 2 3 4 5 Strongly Agree				
1. The system has user-friendly Graphical User Interface (GUI).				
2. It is easy to navigate from one screen to another screen through the system.				
<b>Informativeness</b> Strongly Disagree 1 2 3 4 5 Strongly Agree				
1. The system will help user to search information about insurance.				
2. The information provided is simple and easy to understand.				
<b>User Feedbacks</b> Strongly Disagree 1 2 3 4 5 Strongly Agree				
1. You are interested to use this system.				
2. Do you know any web-based systems exist for PMS?				
3. Please leave your comments about Performance Management System for the betterment and improvement of this system.				