# LOSS ADJUSTING PROCESS IMPROVEMENT OF LOSS ADJUSTING COMPANY

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บทคัดย่อและแฟ้มข้อมูลฉบับเต็มของวิทยานิพนธ์ตั้งแต่ปีการศึกษา 2554 ที่ให้บริการในคลังปัญญาจุฬาฯ (CUIR) เป็นแฟ้มข้อมูลของนิสิตเจ้าของวิทยานิพนธ์ ที่ส่งผ่านทางบัณฑิตวิทยาลัย

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# การปรับปรุงกระบวนการประเมินค่าสินใหมทดแทนของบริษัทประเมินวินาศภัย

นางสาวลักษณ์นารา คูหะวัฒนา

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาวิศวกรรมศาสตรมหาบัณฑิต สาขาวิชาการจัดการทางวิศวกรรม ภาควิชาศูนย์ระดับภูมิภาคทางวิศวกรรมระบบการผลิต คณะวิศวกรรมศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

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ลักษณ์นารา คูหะวัฒนา : การปรับปรุงกระบวนการประเมินค่าสินไหมทคแทนของบริษัทประเมินวินาศภัย (LOSS ADJUSTING PROCESS IMPROVEMENT OF LOSS ADJUSTING COMPANY) อ.ที่ปรึกษา วิทยานิพนธ์หลัก: รศ. สุทัศน์ รัตนเกื้อกังวาน, 104 หน้า.

ในธุรกิจประกันภัยในส่วนงานของผู้ประเมินวินาศภัยนั้น จำเป็นต้องใช้บุคลากรที่มีความสามารถและ ประสบการณ์ในการจัดการงานเรียกร้องค่าสินใหมทดแทนให้มีประสิทธิภาพ ถูกต้อง และรวดเร็วตามความด้องการของ ตลาด บริษัทผู้ประเมินความเสียหายนั้นต้องการวางแผนล่วงหน้าและบริหารจัดการปัญหาความล่าช้าที่เกิดขึ้นเพื่อรองรับ ช่วงเวลาที่มีการเรียกร้องค่าสินใหมทดแทนเข้ามาเป็นจำนวนมาก

งานวิจัยฉบับนี้ด้องการกันหาและแก้ไขปัญหาความล่าช้าเหล่านั้นเพื่อให้กระบวนการประเมินความเสียหาย เป็นไปตามมาตรฐานที่บริษัทผู้ประเมินวินาศภัยได้วางแผนไว้ เครื่องมือการวิเคราะห์ทางวิศวกรรมจึงได้ถูกนำมาใช้เพื่อ รวบรวมข้อมูล ชี้วัดและแสดงผลปัญหาที่เกิดขึ้น

การวิจัยได้ทดลองตั้งข้อสังเกตและรวบรวมข้อมูลในทีมที่ผู้วิจัยทำงานอยู่เป็นกรณีศึกษา และใช้ Value Stream Mapping หรือ Flowchart ในการวิเคราะห์ขั้นตอนการทำงาน และใช้ Takt Time ในการวิเคราะห์เวลาเฉลี่ยต่อ ความต้องการของลูกค้า และ ขั้นตอนที่เป็นคอขวด จากนั้นใช้ VA NVA Analysis เพื่อหา Value Added และ Non Value Adding Analysis เพื่อวิเคราะห์ขั้นตอนย่อยๆหา Waste ที่เกิดขึ้นในระบบ ใช้ Fish Bone Diagram และ 5 Whys Analysis เพื่อวิเคราะห์หาสาเหตุที่แท้จริงที่ทำให้เกิดความล่าช้า

จากการสังเกตพบว่าความถ่าช้าที่เกิดขึ้นนั้นมีสาเหตุเกิดทั้งปัจจัยภายในบริษัทและภายนอกบริษัทซึ่งสามารถ สรุปได้เป็น ปัจจัยหลักดังนี้ การทำรายงานไม่มีแบบฟอร์มที่ชัดเจน ทำให้เวลาตรวจสอบรายงานก่อนส่งมีความยุ่งยากใน บางขั้นตอนยังมีความซ้ำซ้อนการจัดเรียงขั้นตอนที่ไม่เหมาสม นอกจากนี้ยังไม่มีเครื่องมือในการเลือกผู้ประเมินที่ เหมาะสมกับงาน ซึ่งเป็นสาเหตุหนึ่งของความถ่าช้าในการทำงานเนื่องจากความไม่ถนัด ไม่มีความรู้ที่เพียงพอ

เพื่อแก้ไขปัญหาความล่าช้าที่เกิดขึ้น ผู้ศึกษาได้ใช้หลักการของ ECRS และ Lean ในการปรับปรุงขั้นตอนการ ทำงาน ได้ข้อสรุปว่า ในบางขั้นตอนของงานสามารถรวบเข้าด้วยกันและจัดวางขั้นตอนการทำงานให้เหมาสม และตัด ขั้นตอนการทำงานที่ซ้ำซ้อน ทำให้เวลาที่ใช้ในการทำงานสั้นลงและมีประสิทธิภาพมากที่สุด นอกจากนั้นได้มีการคิดกัน แบบฟอร์มของการเข้าสำรวจ การทำรายงานรวมถึงแบบฟอร์มจดหมาย ทำให้การทำงานมีมาตรฐาน ถูกต้อง และง่ายต่อ การตรวจสอบ ผู้ทำการวิจัยได้คิดกันเครื่องมือที่ช่วยในการแจกจ่ายงานให้เหมาะสมกับความสามารถของผู้ประเมิน เพื่อที่จะได้ทำงานที่ถนัดได้อย่างถูกต้องและมีประสิทธิภาพ

หลังจากการทดลองนำวิธีการแก้ไขปัญหาความล่าช้าพบว่า สามารถลดขั้นตอนการทำงานจาก 9 ขั้นตอน เป็น 8 ขั้นตอน รวมถึง Lead Time ที่ใช้สามารถลดลงได้ถึง 32.03 ชั่วโมงสำหรับการประเมินเคลมที่มีความคุ้มครอง และ 24.19 วัน สำหรับ เครมที่ไม่มีความคุ้มครอง จากขั้นตอนและเวลาที่ลดลงจึงส่งผลต่อจำนวนงานเฉลี่ยต่อผู้ประเมินลดลง จาก 38 เคลม เป็น 30 เคลม ซึ่งอยู่ในเกณฑ์ที่ได้ตั้งเป้าหมายไว้

ภาควิชา	ศูนย์ระดับภูมิภาคทางวิศวกรรมระบบการผลิต	ลายมือชื่อนิสิต
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ปีการศึกษา	2557	

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In the Insurance business, the section of the loss adjuster requires the efficiency and experience staff to manage the claim with accurate and on time following the market requirement. The loss adjusting company needs to plan in advance and manage the resource available to cope with the delays occurred in the working process for

peak period.

The research will define and resolve the delays problem in order to improve the adjusting process following the requirement from the customer and service standard. The engineering apparatus will be used to

collecting data, pin point the problem.

The research has experimentally observed on the current working team of the researcher as a case study and applied Value Stream Mapping or Flow Chart to analyse the working process and then using Takt Time to define average time per customer demand and bottom neck process and then used Value Adding – Non Value Adding table to analyse the sub process and define the waste occurred in each process. Moreover, the research also used Fish

Bone Diagram and 5 Why Analysis to analyse the root cause of the delay in the system.

As a result, the observation found that the delay caused from both internal and external factors which can concluded as follows, there had no report formatting following with standard and difficult to check, some process is too complicate and bad arrangement, no claim allocation tools which are the reason leaded to the delay in the

working process due to lack of experience and knowledge.

To improve the delay, ECRS and Value Stream Mapping are used as the principal. Concluded that the ordinary processes are combined and rearranged the sequence of processes and also eliminated the duplicate working task in order to shorten the working time and increased capability. Moreover, simplify the process had been implemented in the working process by created a Survey Form, report template and letter template and also information management leaded to standardize, accurate and easy to check. Researcher also established the claim

assignment tools to allocate work to the appropriate staff.

The result of study and implement the improvement program, the working processes can be reduced from 9 processes to 8 processes including the average working lead time could be less 32.03 minutes for the coverage claim and 24.19 minutes for the non-coverage claim. From decreasing of process and time, the outstanding claim per person from the existing 38 claims to 30 claim meet the objective of the thesis.

Department: Regional Centre for Manufacturing Student's Signature \_\_\_\_\_

Systems Engineering Advisor's Signature

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# **Chapter 1** Introduction

This chapter has been created to understand the overview of the research including with the background of the research, state of problems, objectives, scopes, methodology, and the expected benefits.

## 1.1 Background of the research

As we are well aware whether we are watching the news or as in 2011 we did not have to watch the news as many were affected by effects of weather, such as flooding in March 2011 the Southern provinces were flooded and holidaymakers being stranded on some islands as all transport had been terminated due to abnormal weather that had occurred.

The March flooding was soon thrown to be a minor flood in comparison to the flooding which manifested itself as a massive wall of water which had formed a result of various dams in the North and North-Eastern water catchment areas almost simultaneously released water from the dams as a safety measure, although given the volume of water being released clearly this was more of a panic for fear of one or more dams collapsing as they had exceeded their design capacity.

As a result a chain of events had been set in motion leading to the tragic, catastrophic and widespread flooding in various provinces which became submerged by floodwaters heading southwards. These included NakhonSawan, UthaiThani, Chainat, Singburi, Ang Thong, Ayutthaya, Pathumthani, Bangkok and Samutprakarn, as the Chaophraya River flowed through these.

Each year there are a number of disasters, and 2011 the number of disasters were to such a large magnitude with this inflicting unimaginable damage with the loss of life, the Brisbane Flooding, Tsunami in Japan and the Christchurch Earthquake.

The uncertainty and eventuality of incidents occurring which result in catastrophic losses being sustained and with loss of life, there remains the need to ensure that each person and each company have duly considered the economics with the rationale of having the sufficient level of insurance in place prior to such events as referenced above occurring, as it's not a matter of "if", but surely "when". As the "when" cannot be determined that the fact we have insurance companies taking all types of risk that this industry continues to suffer, and suffer badly when there is a catastrophic event leading to substantial property damage.

As claims are reported it's the insurance company's duty to settle insurance claims fairly and promptly. One of the significant services offered is to accelerate the settlement of insurance claims (Pathak, Vidyarthi et al. 2005)

The volume of insurance claims obviously increases when such catastrophic events occur, that each insurance company will have their own strategy and rationale in which the Claim Procedures will be specifically stated in the Insurance Policy as well as stating the type of insurance cover in place (All Risk or Specific Peril) with the associated Sums Insured. It is common practice for a number of reasons to appoint independent parties to ensure that the claim progresses with the independent party assisting the Insured/Insurer throughout the claim to promptly reach a fair and reasonable settlement against each valid insurance policy.

One of the independent parties that are commonly appointed would be an individual or specific firm of loss Adjusters or Claims Adjuster. Loss Adjusters are appointed by and in some cases could be working for multiple insurance companies or self-insured entities, where it is "assumed" that the loss adjuster has gained sufficient experience or relevant qualifications to be dealing with the level and complexity of losses allocated to them.

Within the worldwide insurance industry, the most recognised authority will be The Chartered Insurance Institute (CII) (The Chartered Insurance Institute 2014), where through exams to test their technical ability in insurance, that they obtain the designation "ACII" being an Associate of the Chartered Insurance Institute. Many Loss Adjusters may have been employed within an insurance company in their claims department for many years; gaining invaluable training in insurance and how an insurance company operates; be ACII qualified, where under the Loss Adjuster profession there are various that are recognised, although the largest worldwide is The Chartered Institute of Chartered Loss Adjusters (CILA). Through continued professional development there are those loss adjusters that wish to reach the status of Charted Loss Adjuster, and after several years of understanding the insurance industry and where the loss adjuster fits in, that to ensure their technical ability on a wide range of areas and a final interview to ensure standards are maintained, those who actually go through the process of exams and an interview and are successful will be recognised as an Associate of The Chartered Institute of Loss Adjuster's, with the designation ACILA.

Of all the independent parties that match the needs of an insurance company or a self-insured intensity the loss adjuster is always busy immediately after and for several months later assisting the insurance companies to settle the volume of losses received due to the event.

There are delays in parts of the claim settlement process for various reasons, where one party has their duties to complete some task, and if they are delayed for various reasons that this always affects other parties in the settlement process. This thesis will discuss the possibilities efforts in direction of reducing the delay time in a loss adjustment company which "ABC" is being used as a case study. "ABC" has issues maintaining the usual high standard of claims management services to their clients as there is a delay across the board, which the flooding throughout Thailand in 2011 resulted in over 2,500 claim assignments which there are a high proportion still outstanding after almost one year.

The fact remains when there is increased volume that companies will plan in advance and duly have sufficient resources available for peak periods. Poor service from delays reflect and impact badly on service standards, which has an adverse effect on future business, hence identifying and implementing solutions to reduce the delays which ultimately restores the service level is required.

#### 1.2 State of Problems

The flooding which occurred technically July through to December 2011 was a national disaster. The people suffered watching floodwater inundate their home or work place, as worst for the country's economy that industrial estates with factories producing, cars, IT, hygiene products were submerged for approximately 2 months. Almost all of those manufacturers had an "Industrial All Risk Insurance Policy" and the construction site had a "Contractor All Risk" which covered the damage sustained to their property and losses as a result of the Insured being unable to operate or produce goods, resulting in cash flow issues, salary payments, loan repayments, construct work.

The worst flooding occurred in late September through to December, 2011. The volume of losses being received was such that it almost paralysed the normal work flow. As ABC had grown steadily over the years, then they had some additional staff resources for normal increases in the number of losses allocated to them, yet there clearly was a shortfall in loss adjusters being readily available, and trained.

The company has numerous complaints being received as there were delays in every process level of the of the claim process, and in some cases the delays were at the insurance company as they too were short of staff at the critical time.

The fact that previous service standard audits were showing a rate of 90%, that post flood on closed losses this had fallen dramatically to 43%. The insurance companies acknowledged the fact that the difference was extreme, although were aware of the situation, yet standards are there for a reason.

There were numerous factors which caused the loss adjusters to fall behind in their work flow, which extra time has to be allocated to complaints, which further ads to the loss adjusters works.

## 1.3 Objectives

The objective of this thesis is to improve the loss adjusting process of an adjusting company in order to decrease the volume of outstanding claim per staff.

# 1.4 Scope and Assumption of the Research

In this thesis will focus on adjusting process only and limited in construction team which have 14 members including 12 Adjusters and 2 Technician Assistances.

- Only focus on Contractor All Risk Team which has 12 Adjusters and 2 Technician Assistances.
- Intend on the problem in claim allocation by using "Work Allocation Framework"
  - Develop process for monitoring and controlling operation
  - Reduce process operating cycle time while preserving the quality of service

The effect of its boosting resulted to customer dissatisfaction and company standard failure which the acceptable outstanding claim per person should not high above 30 claims.

#### 1.5 Methodology

#### 1.5.1 Theoretical Study

This process is to find appropriate methods and tools which relate to this Thesis.

# 1.5.2 Review the historical information

This process is for review the company's historical information for more understanding about the company. The relationship of the business segment, the requirement from the customer and current situation of the company will be studied to understand the problem taking place in the working environment.

1.5.3 Study the condition of adjusting process and operating cycle time of each claim categories

The requirement and expected result of adjusting will be defined and set as main aspects of each category.

#### 1.5.4 Defining the problem and analysis

By using the Value Stream Mapping, Takt Time, VA NVA analysis, Fish Bones Diagram and 5 Whys.

## 1.5.5 Define the methodology and information analysis

The thesis will use several tools to confront the problem such as

- ECRS (Eliminate, Combine, Rearrange, Simplify)
- Information Management
- Resource allocation Framework
- 1.5.6 Implementation the method
- 1.5.7 Comparison and assessment
- 1.5.8 Research conclusion and recommendation
- 1.5.9 Thesis report preparation
- 1.5.10 Thesis examination

# 1.6 Expected Benefits

- Remove delay
- Decrease outstanding claim
- Having claim assignment Framework
- Establish Company's Form and data sharing centre

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# **Chapter 2** Theoretical Consideration and Literature Review

#### 2.1 Market Environment

#### 2.1.1 Insurance Market

The Global Insurance Companies (Wells Media Group 2014) are focusing on the large losses disasters in Asia preferably the big flooding in Thailand. Flood eventually reached to the capital city, Bangkok damaged to several homes and business. Moreover, there were 7 industrial estates located at the north of Bangkok also flooded at this occurrence. The economic cost of flooding had gone up to 45.7 billion dollar.

From Thai flooding, the incurrence company had more concerned about the flood risk. The one of risk is the location of the premise. The Industrial estates in Thailand are constructed on the greatest risk area such as the coastal plain area, Lowlying coastal areas, river delta etc. The factory has been constructed without studied the historical data on the natural disasters, storm, flooding.

Although, the factory in Thailand such as Toshiba had constructed flooding protection along their area which were 1.5 metre of concrete and earth dike around the factory area. The Insurance company are still defended themselves by increasing property insurance premiums and reduce or refuse in some high risk cases.

## 2.1.2 Loss adjusting market

Loss adjusting company in Thailand can separate into two categories, international company and Local Company. The different between those two categories are the well-known in the worldwide market, number of staff, professional image, standard of work and service fee.

These factors are important for customer to making a decision when the service is selected and compared to a local company there is quite a big different. The Insurance chooses the international company to handle the large complicated losses and the local company for the small loss with economical fee.

#### 2.1.3 Unpredictable demand

The demand of loss adjusting service depends on the frequency of loss and the number of the Insurance Policy. If we consider the cause of loss, for example the loss from accidental, natural disaster, tsunami, negligent, we could not know when the loss would be occurred. Then admin must be performed in every hour.

However, if we consider the overall picture, the historical data is being the useful key in order to approximate the claim volume. We found that the claim volume of the ABC Company is linier increased every year, except the big flooding in year 2011. Therefore, the company would know the required capacity of staff to influence the claim and create the strategy in the unusable event.

#### 2.2 Strategy formulation

#### 2.2.1 Service classification scheme

Silvestro (Silvestro, Fitzgerald et al. 1992) proposed the three types of service industry which were Professional Service, Service Shop, and Mass Service as shown in the Figure 2-1. The service type is classified in term of 6 dimensions.

Equipment or people focus (Kotler and Armstrong 2006) makes a distinction between the equipment and people based service for example, the equipment based service is airlines and vending machine and the people base service is appliance repair and management consultants.

Customer contact time per transaction: High degree of this dimensions means the customer spend long time in the service, hours, days or weeks. Low mean the customer spend a few minute in the service per transaction.

Extent of customisation: A high of the customisation means the service can be adapted to support the individual customer need. Low customisation is the service has the standard process.

Extent to which customer contact personnel exercise judgement in meeting individual needs as the high degree of discretion is that the front office can decide and judge on the service package without preferring to supervisor.

Source of value added, a back office oriented service is the back office staff is high proportion of the total staff. A front office oriented service is the front office staff being a high number comparing with the total staff.

Product or process focus: A product focus is focusing on what the customer buys. A process focus is focusing on how the services are delivered to the client.

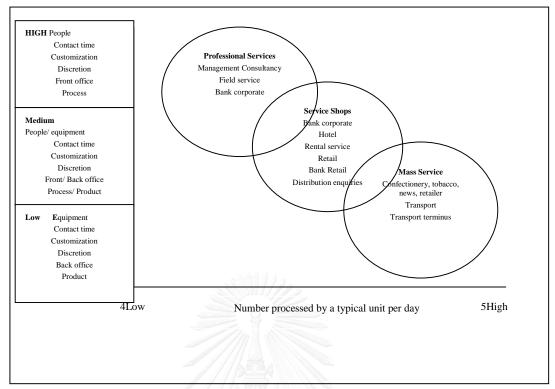


Figure 2-1 Service classification scheme (Silvestro, Fitzgerald et al. 1992)

#### 2.2.2 Selection Matrix

The Selection Matrix (Barkley and Saylor 1994) is a technique for rating issues base on related criteria. The issues are listed on the left side of matrix. Tam lists the criteria related to the issues to be considered in assessing the options. Then the criteria are place into the top of the matrix. Team member does the individual rate and then concluded the result.

#### 2.2.3 ECRS

ECRS is the work element analysis that recognizes user with four words, eliminate, combine, rearrange and simplify, which are the basis key idea to remind of what can be implemented to improve the current process(Obara and Wilburn 2012). The analysis starts by drawing up the work flow and details of current process, and then looks for improvement idea based on ECRS. Elimination is the most simply way when considering to remove waste in the process. Combination means to group some process that can be done at one time and reduce duplicated job. To rearrange process is the effective because some task can be considered as waste when it is done too early. There can be some difficult job in the process, so that simplifying is very necessary because it is not flexible to reply on someone. Any work task should be eased for everyone to operate, so that it is also another way to maximise worker or staff in organization.

#### 2.2.4 Pareto 80-20

The 80-20 rule is widely applied as a primary technique when analysing data information. It reminds us to focus on the majority or 20 % that generates 80 % of the results(Joiner Associates Staff, Sue Reynard et al. 1995). For example, as shown in Figure 2-2, most of spoilage caused from the first three bars which are produce, meat and dairy. According to Pareto principle, produce contributes most, so that to reduce spoilage, restaurant should consider how to minimise it.

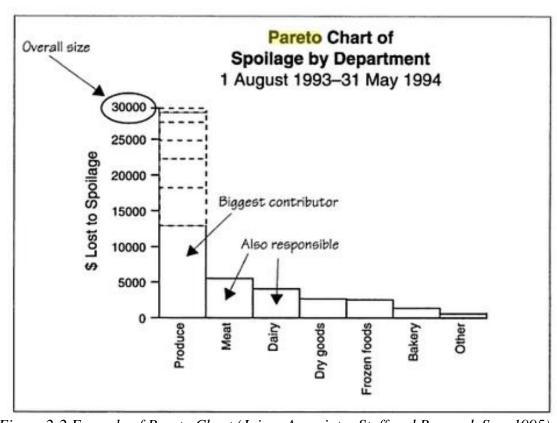


Figure 2-2 Example of Pareto Chart (Joiner Associates Staff and Reynard, Sue, 1995)

# 2.2.5 Fish Bone Diagram

The cause and effect diagram or the Fishbone diagram is a systematic analysis technique which is used to identify potential factors which may affect the incident leading to problem prevention. The main areas which are likely to be a root cause are listed up, e.g. manpower; machinery, methods and materials, and then user look over each branch to break it down into sub-causes(Fryman 2001). Figure 2-3 shows an example of the Fishbone Diagram. Several factors might be suspected to generate the problem, and user can go further to investigate for likely root cause before making decision on how to prevent it.

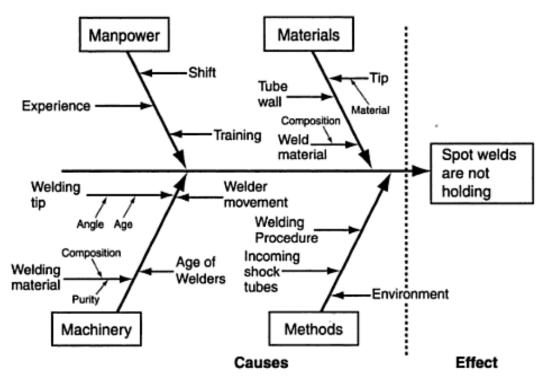


Figure 2-3 Example of completed Fishbone Diagram for Shock Absorber Problem. (Fryman 2001)

## 2.2.6 5 Whys Analysis or Why Why Analysis

Why Why Analysis is a root cause determination technique by applying the question "why" repeatedly until getting a root cause. It could take around 5 times for traditional why why analysis to reach the end. The technique is useful and efficient when identifying root cause because it allows user to explore the relationships between cause and effect(Sarkar 2006). As shown in Figure 2-4, at some point, it is possibly to have two answers and the user can go further and keep asking why. Finally, there can be several likely root causes which should be considered.

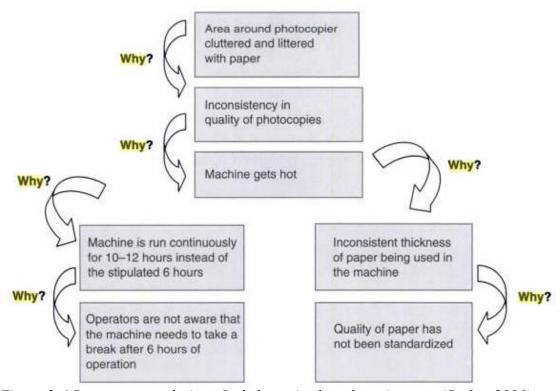


Figure 2-4 Root cause analysis to find clutter in shared service area (Sarkar 2006)

# 2.2.7 Information Management

Information management is to collect and manage the imformation from any source and distribute that information to the other people .

Earl, Michael J.(Earl 2000)suggested about the Five-Point Information Strategy Framework which included of IS strategy, IT Strategy, IR strategy, IM strategy and organisation strategy or asking the question What? How? Where? Who? And Why? to have the information management.

## 2.2.8 Process Analyse

The Process Analyse is a tools used to improve a process by eliminate non-value added activity, waits and/or simplify the process (Barkley and Saylor 1994). The value is based on the organisation and the customer needed. For non-value added processes, it is also judged based on facts within specific environment in the organisation. Improvement team will focus the non-value added process in order to eliminate or reduce waits. From this team can reduce the operation cycle time and respond rapidly to the customer.

# 2.2.9 Lean

The key principal of Lean operations (Slack, Chambers et al. 2010) is relatively straightforward to eliminate the waste in order to develop the operation to be faster, more dependable, higher quality in product and service.

The Lean approach to manage the operation is created to doing the simple things well on gradually doing better and on embracing out waste all step. Three keys of the Lean Philosophy are included waste eliminate, the involvement of staff in the operation and the drive for continuous improvement (Kaisen).

However, Lean Transformation (Keyte and Locher 2004) is not limited to changes on the manufacturing floor but all Lean concepts can be applied to the nonproduction and administrative area.

#### **Lean Tools**

Kanban (Slack, Chambers et al. 2010) is a method if operationalizing a pull base planning and control system. The move of Kanban is used to signal to a previous stage to starting operation or transfer to the next stage.

#### 2.2.10 Eliminate the waste

As the lean principal (Keyte and Locher 2004) is to eliminate the waste and enhancing value, to distinguish between value and waste begins with recognising the normal working process that they are the waste that added cost to the business but did not make the value to the costumer or not.

#### Eliminate the waste

The vital part of Lean Philosophy (Slack, Chambers et al. 2010) is focused on the elimination of wastes occurred in the operation. The waste can define as the activity does not add value to the company and client.

Toyota who is originated Lean Philosophy identified the "Seven Forms of Waste" which have been found in many different types of operations both service and production. The Seven form of waste included of Overproducing, inventory, waiting, extra processing, correction, excess motion, and transportation. However, Keyte and Locher, D. (2004) created the other form of waste which is underutilized people.

- "Over-Production" related to the producing more that needs by the next process for example printing out the paper before it really needs.
- "Waiting Time" occurred from the operator waiting for some information, document, permission or arrangement time. Moreover, waiting also related to the down of system, approve from the manager or other party.
- "Transportation" relates to movement of the paper, information, material, people, and email to the other place.
- "Inventory" is a target for elimination. For the service area, the examples of the inventory are filled in-boxes both of electronic and paper, batch processing of report etc.
- "Extra processing" is occurred form the poor component desire or maintenance which must eliminate. The example activities of the extra processing are re-entering records, extra copy, traveling expense report, expediting and excessive report.
- "Extra motion" is occurred when the operator seems busy but the activity has no value adding for instant, walking to the printer, walking to other office and central filling.
- "Correction" or "Defective" related to any form of defect, for example report error, spelling error, employee turnover, and invoice error.
- "Underutilized people" related to people's ability such as limited employee authority and responsibility for the easy task, inadequate business tools which limited the employee ability and shortage of central car.

# 2.2.11 Value Adding and Non Value adding Analysis

To Analyse the VA and NVA helps to distinguish value process form non value adding process and then create the implementation to eliminate the waste.

Value Adding and Non Value adding uses to analyse the activity which creates value to the customer or they want to pay for. For NVA or Non Value Adding Process can be categorised into two groups. The first group is the activity that creates no value to the customer however, necessary for the business. The other group is the pure waste process.

## 2.2.12 Value Stream Mapping

The Value Stream Mapping (Keyte and Locher 2004) is designed to show the working process throughout the organisation to enable management to

- Visualise and communication the process
- Point out the problem
- Focus the direction of the Lean Transformation

Service Family is a specific process which represents all work and transections the Team needs to change. VSM begins with identifying the service family.

The current state map is shown the company organises and progresses work today and also pin point the problems in the company's work stream.

The future state map focuses on the direction of a new design of value stream mapping which transformed to Lean Enterprise.

Work plan is to develop a detail of the implementation for the company working improvement.

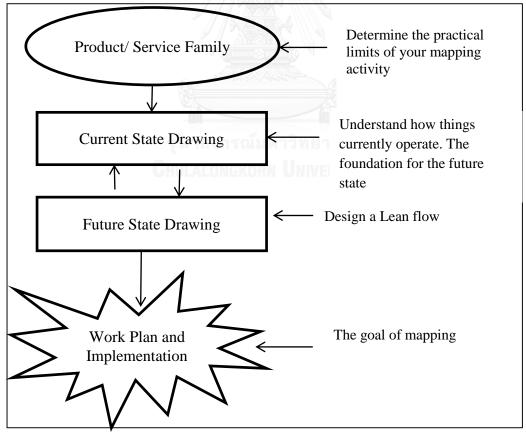


Figure 2-5 Step for Value Stram Mapping From (Keyte, B., Locher, D. (2004))

# 2.2.13 Process mapping

Process mapping (Slack, Chambers et al. 2010) involves details of the process in term of how each process related to each other and also show the flow of material and information through the process. The material flow in the office is included of the data, paper, and electronic mail in order to complete the service.

Process Mapping Symbols derived from scientific management is as shown in the figure 2-6, the symbol uses for classify the type of the activity. The process mapping combines to analyse the waste and Value Adding and Non Value adding process occurred during each process. Moreover, the result after implementation can be shown by comparing the original and after improvement number of process and time to complete.

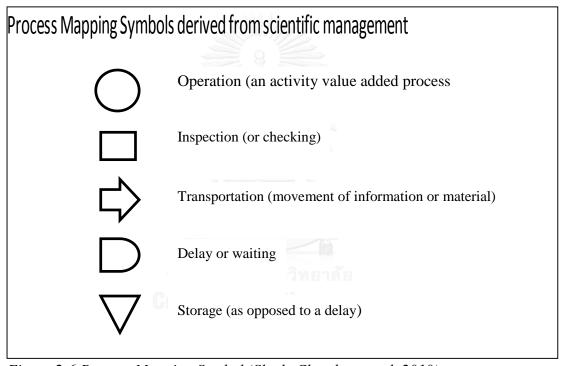


Figure 2-6 Process Mapping Symbol (Slack, Chambers et al. 2010)

# 2.2.14 Takt Time

Takt time (VorneIndustry 2009) is the average unit production time needed to meet customer demand. The manufacturing production line must have production cycle times at least as short as the takt time which the production can reach to the customer demand.

Takt time can be calculated with the formula as follow:

 $T=T_a/D$ 

Where

T = Takt time

T<sub>a</sub> = Net time available to work (=Total Time – Non-Production Time)

D = Demand (customer demand as unit per calculated period)



# **Chapter 3** Overview of the company

It is important for any business to have a real understanding of the current circumstance. Management should have well comprehension of what can be identified as customer needs, and how is the company service given to them in the competition.

Thus, process improvement is a vital activity that can drive organisation to move forward. To point out problem in the firm, necessary information, including organisation chart, work procedure, company's service and organisation environment have been collected for root cause analysis in the following chapter.

#### 3.1 General information

ABC Company was established since 1978 as an international loss adjusting firm in Thailand. The company has been recognised for its good reputation for constant professional high quality claims management service. The company has a variety of services to serve and respond to the market requirements such as claims management, risk management and information services, healthcare management and loss adjustment.

#### **Vision and Mission**

Company's vision: "To be recognized as the world's leading provider of customer claims and administrative solutions"

Company's mission: "To be the service provider of choice by delivering the highest quality claims and administrative solutions in each of the markets we serve"

To reach vision and mission of the company, with professional recruitment process, there is plenty of high qualified staff in the firm, for instance, new graduated from famous university and experienced employees from several industries, and all of them obtained a degree in engineering, accounting and law, allowing allow the company to offer a full range of services together with Third Party Administration services to meet emerging market demands for claims handling and claims management in respect of less traditional insurance lines, such as extended warranty.

The firm's size and diversified skills as an international company have placed it in the unique position of being able to handle large complex losses and high volume catastrophe claims utilising their in-house resources achieving cost savings for clients avoiding the added expense of engaging consultants from other companies or countries.

The Company services are shown as high quality services as the compelling tagline that "Top Quality Promptly". It is clear itself that the company provide the quality work to the client not low price service, or we can call this Price strategy as

"Price is no Object" which is defined by Frederick H. Rice (Rice 1991) in Marketing Strategies for Growing. This strategy refer to the marketing situation that the quality of the product or service is better important that the price.

Therefore, the Company's strategic objectives could be concluded as to leverage and grow company's position as the world largest independent provider claims solutions, improve working capital management, implement innovative, value-added solutions that drive quality and results and become a premier employer.

## 3.2 Organisation Chart

The organisation structure of ABC Company is shown in Figure 3-3. There are two departments, Financial Department and Human Resources Department are working in the back office, and there are three lost adjuster teams which are engineering team, property team and construction all risks team (CAR), who run the company service. All are working under a managing director who has been appointed from the Headquarter in America.

The first segment, the adjuster can be divided into three departments which consist of Construction Team, Engineering Team and Property & Causal Claim. The departments are managed by the type of assignment following Insurance Policy or type of losses. For the working process, all departments have same operation method and the same service standard.

The second part, the internal operations are included with internal operation, financial and internal process management.

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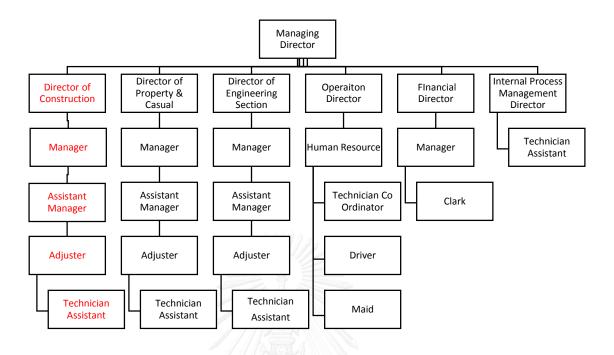


Figure 3-1 Company's organisation chart

# 3.3Relationship in the business segment

There are many services in the company, but the core service is lost adjusting service. We called the party who assigns the claim to the Company as the Principal. The principal can be the individual or company but the highest proportion for the ABC Company is the Insurance Company. The overall of the service is to provide of customer claims and administrative solutions by investigating, adjusting and making recommendation in order to settle the loss.

The adjuster has to contact the Insured who hold the Insurance policy or the Broker who is the representative of the Insured. The relationship in the company's business can be defined as shown in the figure 3-3, the relationship in the business, the adjuster company plays like the middleman between the Insurer Company and the Policy Buyer. The compromising the claims fairly and promptly are the business required.

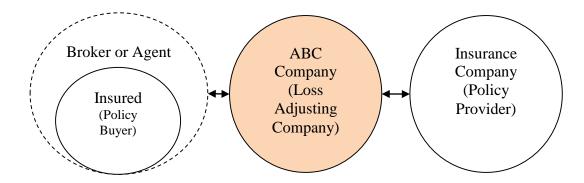


Figure 3-2 Relationship in the Business

## 3.4Contractor All Risks Team (CAR)

For this report, Contractor All Risks Team (CAR) is experimentally observed as a case study. Contractor All Risks is a name of a kind of Insurance Policy. When the construction contract was bided by the contractor, the insurance premium will be included in the contract in order to prevent the risk during the construction period.

"Contractors' All Risks Policy" is the insurance policy related to the contract area that the Insured having paid to the Insurer as the premium. The details of coverage will be identified in the Schedule.

The insured coverage in construction all risk insurance focuses on any loss or damage occurring to the insured construction project and specifically every contract for each phase that the Principal organises the insurance with the main contractor and subcontractors being included. Any loss should be a sudden and unforeseeable event that has occurred during the construction period (cover extended in some policies to include the maintenance period), loss or damage to third party property around the premise due to the insured contract works (provided the Third Party Liability Insurance has been purchased) and loss or damage from an Act of God (natural occurring disaster such as flooding, earthquake and windstorm).

In the observed team, there are 12 adjuster and 2 Technical staff in the team as shown in Table 3-1. Each member comes from different engineering background, e.g. civil and mechanical, and some has duel experience in law.

Table 3-1 CAR Team's Staff List

No.	Position	Experience (Year)	Background
1	Team Director	15	Civil Eng.
2	Manager	8	Civil Eng./Law
3	Asst. Manager	5	Civil Eng.
4	Asst. Manager	4	Mechanical
5	Senior Adjuster	2	Civil Eng.
6	Senior Adjuster	2	Mechanical
7	Senior Adjuster	2	Civil Eng.
8	Adjuster	1	Civil Eng.
9	Adjuster	1	Civil Eng.
10	Adjuster	1	Civil Eng.
11	Adjuster	1	Mechanical
12	Adjuster	1111 - 1	Mechanical
13	Technician Asst.	15	Team support
14	Technician Asst.	3	Team support

## 3.5Claim category

Contractor All Risks Team has priority to handle the claim related to contractor All Risks Policy. The Construction All Risks Policy provides the coverage to the loss occurring from the construction activities both of the material and work in the construction contract and the property of third party.

The policy provides the coverage for all loss concerned to the construction contract and all parties that have respective right and interest may appear in the policy. – Wording from the standard CAR Policy

The Coverage have been separately into three sections,

Section I: Building and Civil Engineering Work

Section II: Machinery Erection, and

Section III Third Party Liability

The Section I & II have a similar coverage that the policy provides the coverage for unforeseen or accidental loss or damage from any cause, other than those specifically excluded.

The Section III provides coverage for the *accidental loss or damage to the third party's property*. Then the Insurer will make the appropriate payment pay or not following the coverage in the policy.

The type of work typically consists of two conditions influenced by the coverage of the policy. The working processes of <u>the coverage claim</u> of the damage to construction work and the property of the third party are similar that the adjuster has to request the claim information from the customer or insured and then adjusting the

claim process. For <u>no coverage claim</u>, the claim information is not required but sends the repudiation letter to the Insured after approaching site visit.

Therefore we categorise the claim studies into two groups, the policy activation, cover and not cover based on the different of working processes.

Category 1: Policy coverage Category 2: No policy coverage

## 3.6 Outstanding claim per person

The outstanding claim is the opening claim in the system. The number of claim has been counted since the claim opened until closing the claim. Following the objective of this thesis is to reduce the number of claim per person.

As shown in the Table3-2, from the data collection, there were 457 claims in the system classified to a policy coverage type 354 issues and no policy coverage 103 issues. The average claim per person is approximately 38 claims per person.

Description	Unit	Number	Average
No. adjuster	person	12	
Total Claim	Claim	457	39.08
Not coverage	Claim	103	8.58
Coverage	Claim	354	29.50
Assigned claim	Claim/person	าลัย 38	

#### 3.7 Working process

The working process and processing time of ABC Company will be explained by using the Value Stream Mapping or VSM. VSM helps to clarify the path of work, waiting time during each process and also bottle neck which used outstanding time period to finish.

## 3.7.1 Value Stream Mapping (before improvement)

Every single day, there are piles of insurance claims passed to the firm via electronic email. It becomes responsible for investigating the specific details of the claim and negotiating the payment. As shown in the Figure 3-3, the process starts once claim is sent to the team manager who is in charges of managing available resource or members to deliver satisfied output. In fact, there should have been some criteria to address time slot, experience and background in order to assure that the right person is assigned to the right job, but in reality there is none. The claim is given

to staff who is likely to handle it weather he/she is available at time being, thus it creates interruption to the on-going project.

Then, investigation is conducted for making first advice report. In case of no coverage claim, the report is submitted to the Insurer for approval before deny letter is issued and forwarded to customer for reconciliation process. The approval lead time of the first report takes around 2 weeks and another 2 weeks for approval of deny letter. It is clearly that lots of time is wasted in approval process.

Once insured accepts the deny letter, the final report is issued to collect service charges from an insurer or a policy holder. On the other hand, in case of coverage policy, the insured is required for supporting document and that takes approximately 2 weeks before a set of required documents is ready for the next process which is to make a proposal to a policy holder.

Once the proposal is submitted, it takes another 2 weeks for insurer to approve and return to the in-charge person. Then, Form of Acceptant is issued to finalise the claim costs before being submitted to a policy holder for final approval. Then, when all procedures are completed, the final report is submitted to the insurer for service fee.

## 3.7.2 Before Improvement Push System

Basically, it has been found that the push system is applied throughout stations in the process and it creates several kinds of wastes along the way, for example, inventory is created when the next process has yet to be ready for the work, there is no such a signal to control process rhythm, thus some task is produced too early or more than it needs.

# 3.7.3 Takt Time before Improvement

Takt Time is the average unit production time needed to meet customer demand. The previous cycle times for each process are summarized in the operator balance chart as shown in Figure 3-4. To create flow that incorporates into lean concept, it is necessary to look at the processing time of the workstations where is still above the take time line. Therefore, the key idea is trying to lower the cycle time to near takt time as much as possible. There is no problem at the first station which is job assigning process, while examining the next two processes which are surveying and issuing first report, team notices that the cycle time is too far from the takt time. Surveying is time consuming process, so it is difficult to shorten the travelling time, but there are several sub-activities where team needs to figure out how much improvement can be made. Issuing first report also takes time as it requires reliable information apart from the collected evidence, so adjuster needs to do research on his/her own and that can be on the Internet, industry contact, and so on. The thing is cycle time is clearly outstanding much over than takt time. The next procedure is to request for support document and it is likely to give the satisfied output. However, this is the point where team can consider to rearrange the job in order to balance the

processing time. To issue deny letter, it is likely to take time a bit higher than takt time, thus some minor action should be made to reduce time in process. To create proposal is the last process that team needs to conduct kaizen activity and this is where adjuster again has to review report and information against expected claim amount by customer in order to adjust the figure to satisfy all parties. Finally, there are two workstations which are called Form of acceptance (FOA) and Final report (FN) where the cycle times is lower takt time ceiling. Basically, it is necessary for team to conduct kaizen activity based on lean philosophy to bring down the processing time of four workstations which are survey, RN1, deny letter and propose.



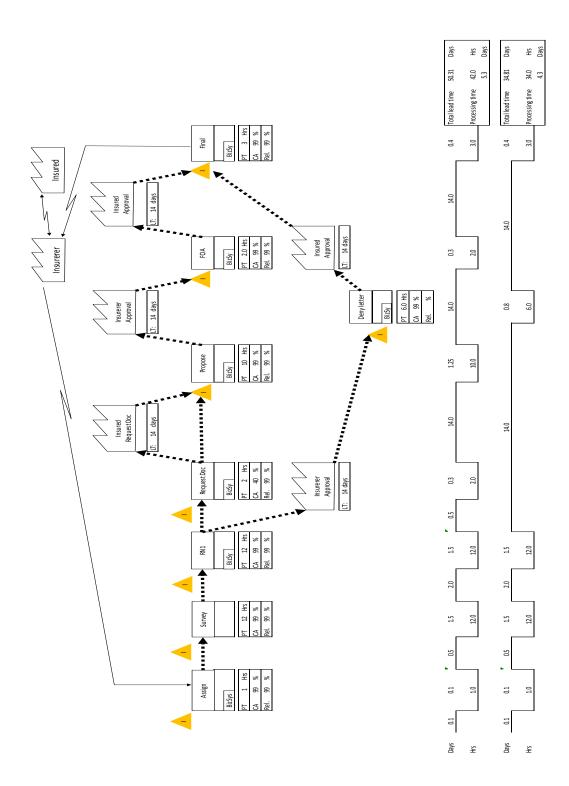


Figure 3-3 Value Stream Mapping (Before improvement)

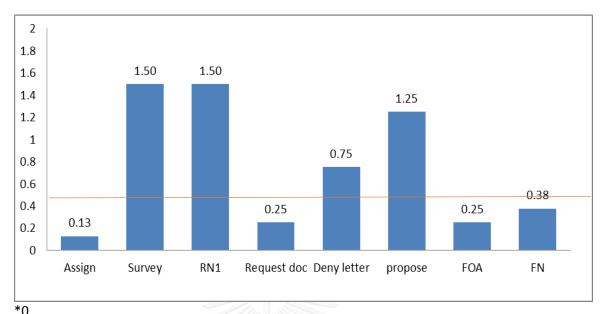


Figure 3-4 Takt Time (Before)

## 3.8 Defining Problem and Root Cause Analysis

Defining the problem and analysis started with sitting up team member. Team will discover the wastes of each process by using VA NVA Analysis. Then the root cause of waits will be analysed by using tools such as fish bone diagram and even interview the interaction party. The final result from this chapter is the root cause of the problem.

# 3.8.1 Building Improvement Team

Brain storming meeting is a good chance for the staff sharing their ideas and supposed to be a part of the improvement. The member in this team include with the 3 level of the adjuster in the company ABC.

- Management level 2 persons
- Manager and Senior Adjuster 4 persons
- Junior Adjuster 2 Persons

All level selected had the different vision and facing with the problem in different level of their positions. People in management level are important for the improvement plan and implementation activity that they have authorized to approve and support any proposed activities, for example, in case of the project required the budget or additional resource. The Management level which is the Managing Director of the company can approve the budget for the improvement plan.

For the manager, senior and junior adjuster, they are facing with the real problems occurred in the working environment but in different positions. Manager of the Team is not only handling the claim but also managing the team members such as work allocation, primary checking and advising the detail of any reports, etc. For the senior and junior adjuster, the main jobs are quite similar but the senior adjusters have more experience about the policy wording, working procedure, negotiation skills etc. Therefore, the senior adjuster has to consult the junior adjuster.

For example, the Manager is not only handling own claims and also has responsiveness in the management term. Senior Adjuster normally responses to the claims with experience more than junior adjuster. The senior is also being the consultant for the junior. The problems occur in the working place covered all level of the adjuster will be defined.

Team member establishes for sharing the idea and discuss matter about the problem occurred in the company.

# Having discussed meeting

The arrangement was sent to all meeting members. In the introduction sector, the author informed the details about the collected problem from the workplace and also the objective of the project. Moreover the possible clauses which were analysed from the Fish-Bone Diagram and Why-Why analysis also included in the beginning of the meeting. After that it had a time to discuss and share their opinions.

## **Summaries the results**

The Result from Fish-Bone Diagram and Why-Why analysis or the root cause of the problem will be concluded and start discussion about the improvement plan of each problem in the next chapter.

#### 3.8.2 VA NVA Analysis

Value Added and Non-Value Added Analysis is used to analyse the waste occurred in the working process which needs to improve. Normally the Non-Value Added Process hides in the working process such as reviewing, waiting for approval, inspection, print out the email, filling information.

The processes will be broken down into sub-processes and then classified types of each activity which are operation, transportation, delay, inspection and storage. For classify the process, it is the primary step to define the value added or non-value added processes. Then the internal of each process will define deeply in the Value Added activity (VA) to the company, Non-Value Added activity (NVA) to the Client but still necessary to the Company's process and Non-Value Added both of Client and Company and then input the time of each process in to the table then the proportion of the value added and non-value added will be defined.

The team will define all non-value added process and then eliminate, combine, rearrange and simplify the process in the next chapter.

For loss adjusting process, there are 8 processes to be defined.

# **Process 1: Assignment Process**

This is the starting point of the loss adjusting process. When the loss occurred, the Insured informs the claim incident to the Insurer and then the Insurer who assigns to the loss adjusting company. The Information from the Insurer must include a contact person, contact number, the copy of insurance policy, and primary cause of damage whether the Adjusting Company will receive the claim or not.

#### Refusing the claim assignment

The reason to deny the claim from the Insurer Company, for instance a conflict of interest does exist, for example, there are someone in the company might know privately with the Insured. Moreover, if the company has been received the instruction by the tenant insurer, the company could not receive the instruction from the building insurer. The other issued whether the task is outside the scope of experience. It is important that the adjusting company has clearly reasons to reject the instruction from the Insurer.

The Team Manager assigns a new claim to the lead adjuster who will handle the claim until finalise the claim.

Main Process Name	Activities GHULAL	Operation	Transport	Delay	Inspection	Storage	Mean (minutes)	VA/NVA	VA (minutes)	NVA1 (minutes)	NVA2 (minutes)	Wastes
	New claim arrives by Email	0	<b>★</b>	D		$\nabla$	1.0	VA	1.0			
	Waiting for processing	0	$\Box$			$\nabla$	15.0	NVA2			15.0	Waiting
	Check conflict of interest	0	$\Diamond$	D	<b>_</b>	$\nabla$	5.0	VA	5.0			Extra Processing
	Check available adjuster	$\bigcirc$	úλ	þ		$\nabla$	10.0	NVA1		10.0		Extra Processing
Assignment	Assign a new claim to adjuster		Û			$\nabla$	6.0	NVA1		6.0		Extra Processing
Assignment	Open a new claim in the system	4	q	$\Box$ /		$\nabla$	8.0	NVA1		8.0		Extra Processing
	Print out the assignment Email	0	$\Diamond$	D	$\vdash$	7	5.0	NVA2			5.0	Over motion
	Make a folder	0	$\Diamond$	D		<b>\</b>	5.0	NVA2			5.0	Over motion
	Send a folder to the Adjuster	0		þ		$\nabla$	5.0	NVA2			5.0	Over motion
	Total (60 minutes)	_/	/				60.0		6.0	24.0	30.0	

Figure 3-5 VA NVA of Assignment Process

As shown in the Figure 3-5, from data record, the claim is normally assigned to the adjusting company via Email. The Email is approximately 15 minutes being waited by many certain reasons. Then the manager uses approximately 21 minutes for processing assignment method. The later processes are the Technical Assistant opening a new claim to the system, printing out the email and document and making a folder, using approximately 26 minutes.

From considering about the value adding process, there are only 6 minutes is value added to the customer, 24 minutes for non-value added to customer but still necessary to the business process and 30 minutes for non-value added to any parties. There is only 1 significant waiting used 15 minutes that should be eliminated from the process and 4 processes are considered as extra processing and 3 processes are being the over motions.

## **Process 2: Survey**

The survey processes starts with a lead adjuster who suddenly contacts the Insured or Broker for site inspection arrangement. The first information will be collected in this process. The first information is very important that, in case of complicated claim, the lead adjuster might be switched to the appropriate one based on the knowledge, experience and also the assistant adjuster if required.

The adjuster must request initial details of loss from the Insured to maintain the condition of incident area and damaged property to preserve the evidence, then confirm the arrangement to every party included the Insurer, Insured and Broker.

Then the adjuster travels to site and interviews the Insured to collect data such as circumstance, cause of loss, nature and extent of damage, party to contract, contract works and reserve in order to identify the key policy information.

In addition, there are some activities of survey process that the adjuster has to take photographs of loss and survey statement with the Insured. A written statement on the spot should have witness sign together and it will become valuable evident that the interviewee cannot deny letter what was stated.

After finishing site inspection, the adjuster creates the First Advice. The purposes of this report are to inform the Insurer that the adjuster already has investigated the loss and provide them the important information. The First advice is one page report shown the brief information of loss submitted to the Insurer. The purposes of this report are to present the Insurer that the adjuster already has investigated the loss and provide them the important information, for instance, exact date of loss, nature of loss and the reserve amount of indemnity.

The accurate reserve is a vital way to show the adjuster performance and their professional work. The accurate amount of reserve could help the Insurer and also reinsurer to prepare the sufficient funding and arrange liquid funds for their outstanding claims. The wrong reserve might cause the Insurer had the financial problem. The

Main Process Name	Activities	Operation	Transport	Delay	Inspection	Storage	Mean (minutes)	VA/NVA	VA (minutes)	NVA1 (minutes)	NVA2 (minutes)	Wastes
	Arrange time and date with for survey			D		$\nabla$	15.0	VA	15.0			
	Waiting for survey	0	/ <sub>Û</sub>	7		$\nabla$	240.0	NVA2			240.0	Waiting
	Travelling to the site	0	lack			$\nabla$	120.0	NVA1		120.0		Extra motion
	Site inspection	lack	$\hat{\Box}$	D		$\nabla$	120.0	VA	120.0			Correction
	Travelling to the office	0	<b>*</b>	D		$\nabla$	120.0	NVA1		120.0		Extra motion
	Maker a First Advice Report	lacksquare	Û			$\nabla$	45.0	VA	45.0			Correction
Survey	Send Email to Team Manager	, ()	<b>†</b>	9		$\nabla$	5.0	NVA2			5.0	Extra processing
	Checking Report by Team Manager	0	Û		V	$\nabla$	20.0	NVA1		20.0		Extra processing
	Send Email to Checker	0	¥	9		$\nabla$	5.0	NVA2			5.0	Extra processing
	Checking Report by Checker	0	Û		V	$\nabla$	20.0	NVA1		20.0		Extra processing
	Send the Report to the Insurer	0	-	9		$\nabla$	5.0	VA	5.0			Eliminate
	Print out the Email to folder	0	Û	D		▼	5.0	NVA2			5.0	Eliminate
	Total (12 hr/ 720 minutes)						720.0		185.0	280.0	255.0	

Figure 3-6 VA NVA of Survey Process

Adjuster has to provide the reserve based on the best analysis as soon as possible in the early stage. In case that the adjuster has the large different amount between the reserve and the final adjustment, the Insurer may add the adjuster name to the backlist as the adjuster is not pass their key performance.

From VA NVA chart, Figure 3-6, the adjuster spends time for making an arrangement approximately 15 minutes. The delay from waiting for site inspection is occurred in the process from many reasons such as the appointment makes by the Insured, the adjuster is not available at that time of the arrangement. Time of delay is over 240 minutes or over 4 hours. Time for travelling to site inspection is up to the distance from the office, for the average time is 120 minutes, one way. Site inspection uses average 120 minutes. The First Advice and checking process use 110 minutes till send the report to the Insurer. The total time uses in the survey proves is average at 720 minutes or 1.5 working days

The Survey process has Value Adding process 185 minutes, 280 minutes for non-value added to customer but still necessary to the business process and 255 minutes for non-value added to any parties. From the waste occurred during the process, for example the waiting time for survey should be eliminated by finding the appropriate adjuster in case that the adjuster is not available. Moreover, in site inspection, the mistake such as the date collect is not completed and need to have the second site inspection. The simplify process by creating survey for helps the adjuster to remind and ensure that the date during site inspection is completed.

## **Process 3: Report no.1**

The Report no.1 is a document that contains all information collected by an adjuster during survey, circumstances and cause of a claim investigation and the policy coverage of the claim should be concluded. A high-quality report must demonstrates sound professional judgement, well organise and presented and clear language (Devid Thomson, Tony Morgan et al. 2006).

Main Process Name	Activities	Operation	Transport	Delay	Inspection	Storage	Mean (minutes)	VA/NVA	VA (minutes)	NVA1 (minutes)	NVA2 (minutes)	Wastes
	Making Report no.1	K	4	b		$\nabla$	300.0	VA	300.0			Correction
	Send Email to Team Manager	0	*	9		$\nabla$	5.0	NVA2			5.0	
	Checking Report by Team Manager	0	令		<b>]</b>	$\nabla$	200.0	NVA1		200.0		Extra processing
	Send Email to Checker	0	<b>*</b>	9		$\nabla$	5.0	NVA2			5.0	Extra processing
Report no. 1	Checking Report by Checker	0	$\Box$		>∎	$\nabla$	200.0	NVA1		200.0		Extra processing
	Sending the report to Insurer	0	<b>*</b>	9		$\nabla$	5.0	VA	5.0			Extra processing
	Print out the Email to folder	0	û	D		<b>T</b>	5.0	NVA2			5.0	
	Total (720 minutes)						720.0		305.0	400.0	15.0	

Figure 3-7 VA NVA of Report no. 1

The principal, the Insurer have to provide the policy schedule. The fully exist contact between the Insurer and the Insurer must be crystal clear and understood.

It is a responsibility of the adjusting company to make recommendations to the Insurer that accept or deny the claim.

The claim categorised can be defined in this process. If the policy has the liability, requesting claim information to the Insured will be skipped continue processed to Process no. 5. However, if the policy does not have the liability, the process will continue processed to Process no. 4 issued the deny letter to the Insured.

From VA NVA table, Figure 3-7, the Report no. 1 required approximately 300 minutes or 5 hours to finish writing. The adjuster writes the report following the example report provided by the manager and then adapt to their own way. Therefore the report is quite different and no standardise.

The adjuster has to research for some information. For example, the cause of loss relates to the piling work which used new method by using Side Jack-in Pile Method with pre-stressed concrete spun piles, the adjuster has to understand the working process which leads to the actual cause of loss. In this case the experts such as professional in civil engineer, building consultant, quantity surveyor may be required to engage in order to analyse the cause of loss and method of repair for more reliability report. The other validated issue are as follow:

- The person making the claim is the insured defined in the policy extension.
- Date and time of damage occurred is in the policy period.
- The risk and proximate cause are covered by the policy.
- Policy exclusion details

For the checking process, the report will be checked by team manager and the checker, who is the foreigner, native speaker and knows the adjusting process well. The checking processes use 415 minutes.

The Report no. 1 process has value adding process 305 minutes, 400 minutes for non-value added to customer but still necessary to the business process and 15

minutes for non-value added to any parties. From the waste consideration, the extra processing occurred in the process of checking which considered that they are duplicated working and waste time more than their advantage.

## **Process 4: Repudiation letter**

The Repudiation letter is an explanation letter about the policy coverage which send to the Insured when the claim does not covered by the policy. After sending the report no. 1, the Insurer will confirm to the adjuster to send a repudiation letter to the Insured.

From VA NVA table, Figure 3-8, the Repudiation Letter required approximately 95 minutes to finish writing. The adjuster has to create the letter which details about the circumstance, investigation and also the policy comment. At the end of the letter, there is a place for the Insured to complete and sign to confirm the withdrawal of this claim. The checking processes use 250 minutes and then the secretary sends the letter to the Insured and CC. the Insurers.

The Repudiation Letter process has Value Adding process 100 minutes, 250 minutes for non-value added to customer but still necessary to the business process and 10 minutes for non-value added to any parties. From the waste consideration, the extra processing occurred in the process of checking which considered that they are double working.

Main Process Name	Activities	Operation	Transport	Delay	Inspection	Storage	Mean (minutes)	VA/NVA	VA (minutes)	NVA1 (minutes)	NVA2 (minutes)	Wastes
	Receive approval form the Insurer	0				$\nabla$	5.0	NVA1		5.0		Extra processing
	Making Deny Letter	•	$\Box$	D	300	$\nabla$	95.0	VA	95.0			Extra processing
	Send Email to Team Manager	0	*	9		$\nabla$	5.0	NVA2			5.0	Extra motion
	Checking Report by Team Manager	0	$\Rightarrow$		<b>\</b>	$\nabla$	120.0	NVA1		120.0		Extra processing
Deny letter	Send Email to Checker	0	→<	9		$\nabla$	5.0	NVA1			5.0	Extra motion
	Checking Report by Checker	•	$\Rightarrow$		<b>&gt;</b>	$\nabla$	120.0	NVA1		120.0		Extra motion
	Send the letter to the Insured	0	<b>*</b> <	9		$\nabla$	5.0	VA	5.0			Extra processing
	Print out the Email to folder	0	$\Rightarrow$	D		7	5.0	NVA2			5.0	
	Total (120 minutes)						360.0		100.0	245.0	15.0	

Figure 3-8 VA NVA of Deny Letter

## **Process 5: Request claim document**

The request claim document letter will be sent to the Insured or Broker in order to request the relevant information such as original specification of each item damaged, quotation detailing the specification of each item damaged, report or letter from the supplier/original equipment manufacturer (OEM) for plant, equipment and machinery, inventory prior to loss etc.

From VA NVA table, Figure 3-9, the Request Document Letter required approximately 90 minutes for listing the relevant document and making the letter. The checking processes use 20 minutes and then the secretary sends the letter to the Insured or Broker and the Insurers using 8 minutes.

The Repudiation Letter process has Value Adding process 50 minutes, 60 minutes for non-value added to customer but still necessary to the business process and 10 minutes for non-value added to any parties. From Waste consideration, the process has the extra processing, extra motion and correction. Moreover, the company has no template as the standard that could be reduce the operation and checking time to correction.

The Request document letter is a vital process that could make the adjusting process easier by reducing the researching time for both price and quantity.

Main Process Name	Activities	Operation	Transport	Delay	Inspection	Storage	Mean (minutes)	VA/NVA	VA (minutes)	NVA1 (minutes)	NVA2 (minutes)	Wastes
	Checking existing information	0	$\Rightarrow$	D		$\setminus$	30.0	NVA1		30.0		Extra processing
	List up the document require	•		D		$\nabla$	15.0	NVA1		15.0		Extra processing
	Make a request document letter		$\Rightarrow$	D		$\nabla$	45.0	VA	45.0			Correction
	Print out letter for checking	0	$\Rightarrow$	D		7	5.0	NVA2			5.0	Extra motion
Request document	Walk to Manager desk	0	-	P		$\nabla$	2.0	NVA2			2.0	Extra processing
document	Checking letter by team manager	0	$\Rightarrow$		>∎	$\nabla$	15.0	NVA1		15.0		Extra motion
	Scan to Email	•	T	D		$\nabla$	3.0	NVA2			3.0	Extra motion
	Send the letter to the Insured	0	-	D		$\nabla$	5.0	VA	5.0			Extra processing
	Total (120 minutes)						120.0		50.0	60.0	10.0	

Figure 3-9 VA NVA of Request Document

#### **Process 6: Proposal Letter**

The loss adjuster will progress matters once they are confident they have sufficient information and documentation on their file. The loss adjuster may work individually depending on the complexity or quantum or in teams as many involved ensuring the building aspect has a civil engineer from the loss adjusting firm, electrical items will be such that an engineer with an electrical background discusses this aspect.

The team will duly update their team members, and a decision taken that the loss is sufficiently documented to conclude the adjustment of the claim, with uninsured items being removed from the adjustment. The claim quantity and the unit cost will be collected and negotiated with the suppliers provided by the Insured or comparing with the market price.

This will internally be agreed within the loss adjusting firm and difference of opinions may arise, which if the loss adjuster is not aware of pertinent information which the insurance company has not supplied, that this would create some friction as conclusions made on a loss, where the facts must state in order if the insurance company has information which they should have released, it is at this stage prior to paying or declining the loss that this must be discovered.

All recommendations made by a loss adjuster must follow the precise wording of the insurance policy that the ultimate decision to pay or not pay falls for the management team of the insurance company.

The amount of the adjustment has to be crystal clear with all payment explained and all adjustments even if minor amounts or declining the entire loss, that details clearly given to the Insured or their representative.

From VA NVA table, Figure 3-10, the Proposal Letter required approximately 16 minutes for receiving and printing out the document which could be considered as the extra motion and wasted the resource. Then the adjusting processes such as making the adjustment table, checking the quantity and price and then make a proposal letter use 414 minutes. The checking processes use 160 minutes and then the secretary sends the letter to the Insurers using 10 minutes.

The Proposal Letter process has Value Adding process 359 minutes, 195 minutes for non-value added to customer but still necessary to the business process and 31 minutes for non-value added to any parties.

Main Process Name	Activities	Operation	Transport	Delay	Inspection	Storage	Mean (minutes)	VA/NVA	VA (minutes)	NVA1 (minutes)	NVA2 (minutes)	Wastes
	Receive document by Email	0	4	$\varphi$		$\nabla$	1.0	NVA2			1.0	
	Print out document to folder	0	Û		Н	>▼	15.0	NVA2			15.0	Extra motion
	Make an adjustment table	•	p			$\nabla$	60.0	NVA1		60.0		Correction
	Checking scope	•	Û			$\nabla$	30.0	VA	30.0			Correction
	Checking price	•	Û			$\nabla$	120.0	VA	120.0			Correction
	Checking police coverage	•	Û			$\nabla$	24.0	VA	24.0			Correction
Proposal	Making a proposal letter	•	े	D		$\nabla$	180.0	VA	180.0			Correction
rioposai	Send Email to Team Manager	0	*	9		$\nabla$	5.0	NVA2			5.0	Extra processing
	Checking by team manager	0	Û		X	$\nabla$	75.0	NVA1		75.0		Extra processing
	Send Email to Checker	0	¥	9		$\nabla$	5.0	NVA2			5.0	Extra processing
	Checking by Checker	0	Û		T	$\nabla$	75.0	NVA1		75.0		Extra processing
	Send the proposal letter to the Insurer by Email	0	<b>\</b>	9		$\nabla$	5.0	VA	5.0			
	Print out the Email to folder	0	Û	D		>▼	5.0				5.0	Extra motion
	Total (600 minutes)		·				600.0		359.0	210.0	31.0	

Figure 3-10 VA NVA of Proposal Letter

## **Process 7: Issuing Form of Acceptant**

Once the insurance company accepts the loss adjuster's recommendations, a form is issued to the Insured which states the policy number, cause of loss, amount of indemnity being paid and this has to be completed accordingly with an authorised signature, signed, dated and witnessed.

From VA NVA table, Figure 3-11, the Form of Acceptance required approximately 65 minutes for receiving the confirmation and makes a form of acceptance and conclusion table. The checking processes use 45 minutes and then the secretary sends the Form of Acceptance and Email to the Insured using 10 minutes.

The Form of Acceptance process has Value Adding process 70 minutes, 45 minutes for non-value added to customer but still necessary to the business process and 15 minutes for non-value added to any parties. The waste consideration, the extra processing and extra motion occurred in the process.

Main Process Name	Activities	Operation	Transport	Delay	Inspection	Storage	Mean (minutes)	VA/NVA	VA (minutes)	NVA1 (minutes)	NVA2 (minutes)	Wastes
	Received Confirmation Email from the Insurer	0	<b>→</b>	A		$\nabla$	1.0	NVA2			1.0	
	Print out Email to folder	0	$\Box$		$\forall$	>▼	4.0	NVA2			4.0	Extra motion
	Making a FOA and Conclusion Table	K	þ	D		$\nabla$	60.0	VA	60.0			
FOA	Send Email to Team Manager	0	*	9		$\nabla$	5.0	NVA1		5.0		Extra processing
	Checking by Team manager	0	$\Box$		$\rightarrow$	$\nabla$	40.0	NVA1		40.0		Extra processing
	Send the FOA to the Insured by Email	0	+	D		$\nabla$	5.0	VA	5.0			
	Print out the Email to folder	0	-	D		$\nabla$	5.0	VA	5.0			
	Total (120 minutes)						120.0		70.0	45.0	5.0	

Figure 3-11 VA NVA of Form of Acceptant

## **Process 8: Final Report and Invoice**

In most losses issuing a Final Report concludes the loss adjuster involvement with the specific loss, where the report should have all details related to the loss included the loss amount promptly to the policyholder and the loss adjuster invoice.

From VA NVA table, Figure 3-12, the Final Report and Invoice required approximately 65 minutes for receiving the confirmation and makes a final report. The checking processes use 40 minutes. The Fee Scale calculation uses 20 minutes to make and print out and then using 20 minutes to recheck by the manager. The secretary sends the Final Report and Invoice and Email to the Insurer using 40 minutes.

The Final Report and Invoice process has Value Adding process 65 minutes, 90 minutes for non-value added to customer but still necessary to the business process and 25 minutes for non-value added to any parties. The waste consideration, the extra processing, extra motion and correction occurred in the process.

Conducting VA and NVA analysis as shown in the Figure 3-13 leads us to understand the actual situation in the process. It provides the user with the direction how to analyse each activity throughout the last station whether it is categorised as value or waste against customers' needs. Figure 3-13 illustrates the results of VA and NVA analysis. 40% of the total time spent in process is considered as VA and the rest is 60% is NVA, NVA1 which is necessary action to the firm accounts for 47% while 13% is NVA2 which is the useless activity to anyone.

Main Process Name	Activities	Operation	Transport	Delay	Inspection	Storage	Mean (minutes)	VA/NVA	VA (minutes)	NVA1 (minutes)	NVA2 (minutes)	Wastes
	Received Confirmation Email from the Insured	0	-	Q		$\nabla$	1.0	NVA2			1.0	
	Print out document to folder	0	$\Rightarrow$	D		<b>7</b>	4.0	NVA2			4.0	Extra motion
	Making a Final Report	•		D		$\nabla$	60.0	VA	60.0			Correction
	Send Email to Team Manager	0	-	P		$\nabla$	5.0	NVA2			5.0	Extra processing
	Checking by team manager	0	⇧		$\nearrow$	$\nabla$	15.0	NVA1		15.0		Extra processing
	Send Email to Checker	0	<b>*</b> <	9		$\nabla$	5.0	NVA2			5.0	Extra processing
Final Report	Checking by Checker	0	⇧		<b>&gt;</b>	$\nabla$	15.0	NVA1		15.0		Extra processing
I mai report	Fee Scale Calculating	0	-	D		$\nabla$	15.0	NVA1		15.00		Correction
	Print out fee scale and invoice		$\uparrow$	D		$\nabla$	5.0	NVA2			5.00	Extra motion
	Sent to Approve by Team Manager	0	7	D		$\nabla$	15.0	NVA1		15.00		Extra motion
	Send the Final Report and Invoice to Insurer	0	-	4		$\nabla$	5.0	VA	5.00			
	Print out Email to folder	0	$\Rightarrow$	D		>	5.0	NVA2			5.00	Extra motion
	Close claim in the system	•		D		$\nabla$	30.0	NVA1		30.00		
	Total (180 minutes)						180.0		65.0	90.0	25.0	

Figure 3-12 VA NVA of Final Report

	VA	NVA1	NVA2	
Total Minutes	1140	1354	386	
Total Percentage	40%	47%	13%	

Figure 3-13 Summary of VA/NVA analysis

## 3.8.3 Root Cause Analysis by Fish Bones Diagram

From Value Stream Mapping, Team found that the ordinary working processes have many waiting times occurred during the process and the processing time should be shortened in order to reduce claim outstanding.

Fish Bones diagram is a root cause analysis technique, providing the effective framework where the potential problem areas are specified, thus it helps a user to scope the likely root cause, leading to solution for improvement. The brainstorm session is taken while discussing on the diagram. Following are the main categories pointed out by the team.

Team had discussed about the root cause of the problems and wastes defined by Value Stream Mapping and also Process Mapping which researched about wastes and Value Adding and Non Value Adding Activity.

## Fish Bones Diagram or Cause and Effect Diagram

There are 5 aspects to be considered which are 5 M and 1 E, Method, Measurement, Material, Machine, Man and Environment. The Fish Bone is as shown in the Figure 3-13.

#### 1. Method

Team found that there was delay occurred during completing the report and letter such as Report No.1, Proposal Letter. From doing process analysis, team found that there was duplicated working in the checking process affected to the working flow. Moreover, from interviewing the staff, there was the problem about lack of data to complete the report from many reasons.

For the other process, from process analyses, the checking process required long time to complete. From discussion with the checker, they advised that the report has no standard; therefore, they had to revise and rearrange the story, sentence, grammar to reach the standard of the company.

In addition, work planning is another major point where should be improved. The adjuster has difficulty in prioritising work tasks due to interruption, such as new

assignment, customer call, email reply and so forth, during the time they perform the job, so that it has prevented them from utilizing the best of their time.

Moreover, the working process had many waiting taking place especially waiting for the Insured to return the claim document and FOA. The existing process did not have the criteria to fix the problem.

The company also lacks of the monitoring system and the policy to manage the long opened claim. From checking the outstanding of the claim status, we found that there is over 30% of overall claim is opened over 200 days and this is unacceptable. Therefore, the firm needs to find out how to address these issues.

#### 2. Measurement

It is a normal practise to let an employee work for the output in traditional way. The wait-and-watch approach has been found to be ineffective in this kind of business. The firm reputation can be eroded by a number of actions of the employee who generates poor performance, inexperience output, and misconduct of business policy.

According to the team discussion, it was questioning why the measured output or performance varies across the team and what approaches can be taken to make improvement. It clearly appears that the firm needs to create environment that allows consistent during work. Therefore, standardisation is required as well as the work instruction which can help the adjuster to deliver the desired output and minimise discrepancy among the team.

To make sure that client will receive the utmost professional service and the employees are on track to satisfy all parties. The firm needs to establish concrete targets that are easy for the employees to understand the business way, thus it is necessary for the company to have the cross functional team to monitor and control work schedule. The milestone can be set along the way of each project allowing work to be visualised. It is not good to keep one work on his or her own as sometimes it might be too late for solution once problem occurs. For example, delay submission of the primary investigation report often occurs and there can be serious if the complaint is submitted to Office of Insurance Commissions (OIC), so that it is better to have the controller who can get involved in the process to make sure that the report will be handed to a client as promised. Moreover, in previous years, many claim issues have been stuck by a number of reasons. For example, the adjuster does not keep doing his or her duty to follow up on required document from the concerned parties and the insurers take too a long time in their internal process. These can be the main problems as the firm cannot collect cash from the provided service, so that some urgent treatment is required to shorten the lead time, and this can be considered as a key success in this kind of business. The shorter lead time means the quicker revenue to be received.

#### 3. Material

A part from the collected information and evidence from site inspection, knowledge resource is crucial important for the team to provide accuracy assessment towards any damage, and it is usually required an amount of time to conduct the research as there is no available resource provided by the company. Some can be acquired from the Internet and some comes from intelligence which depends on personal experience and network across the industries. In another words, researching always takes time and can be a tough job, besides that in many cases, it was found that many claim issues have been hold when another project is assigned to him or her, and no one can track for the progress, so that seemingly the firm cannot visualize the status.

#### 4. Machine

Machine downtime can typically cause trouble in the office environment, preventing adjusters from acquiring information which is stored in the main server and blocking the user from using any online software application or even assessing the Internet. In many times that there is a halt during working due to unavailability of the office machines. Thus, it is necessary to have all devices check to make sure that they work well through the working time. IT maintenance needs to be scheduled and executed periodically.

#### 5. Man

The lost adjustment is required a set of self-driven abilities. The employees need to have a deeply understanding towards the field that damage occurs and perform according to the regulation and policy in order to deliver the satisfied output to customers. Therefore, it is always the problem for new employees to settle on a career in the beginning because sufficient training is not provided for them to ensure the readiness. It is clearly found that a lack of understanding of procedure and policy can cause delay and several problems in the process. Moreover, using the experienced adjuster as a trainer for new comers can generate different understanding towards the procedure as there is no standardization in the process steps, so it can create variation in terms of output as well as conflict among workers in the firm. In addition, as it is mentioned earlier about job assignment, it is very important to make sure that the right person is assigned, and that can consider from a set of criteria, e.g. experience, job load, claim costs and so on.

Due to an increase on the number of claim volume in recent years, the firm has been aware of insufficient resource capability from short through long term. It was found that the firm lacks the effective method in terms of resource allocation. The job is assigned to the person who is likely to have time slot regardless the information, such as the number of handling claims, employee workload and knowledge background of the adjuster. Therefore, the firm needs to adopt practical criteria and techniques to make sure that the job is given to the right person at the right time.

## 6. Environment

It is a good thing if the working materials are well organized and put them in placed. It was noticed in the workplace that the items have been tucked under desk, piled on top of a cabinet and some items has been kept for many years and never used. Besides that, the hard drive files are put in server without organisation. The point is some item could be lost and it can take many hours looking for it, thus in terms of operation, it can be considered these actions as waste which causes no good for the firm. It is necessary to educate staff to understand how important of these small issues as it can help to improve operation performance as well. It is much more convenience by the time they want to utilise the items, thus 5S is the technique that team agreed to implement in the office.



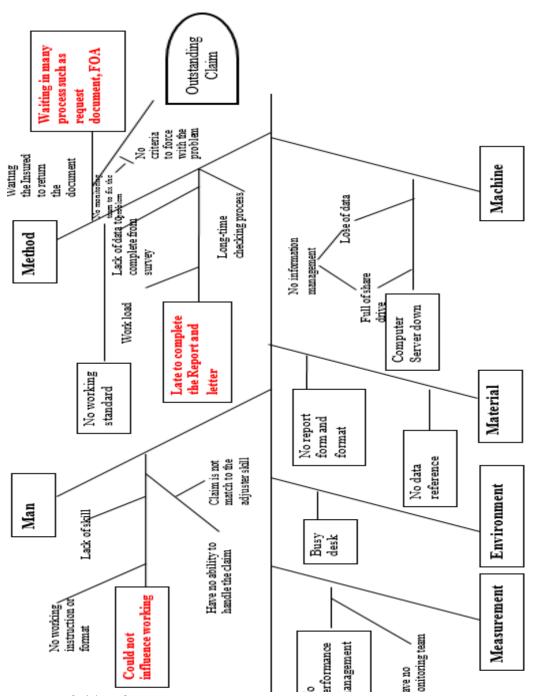


Figure 3-14 Fish Bone Diagram

## 3.8.4 5 Whys Analyse

From fish bones diagram, there are many causes that make the company has high outstanding volume. Team discussed that there are 5 aspects that being the main causes which needed to define the exactly root causes.

5 Whys Analysis is a popular tools to define the root cause of the problem by asking why 5 times. Team pinned point to the completed branch in the fish bone diagram.

# 1. Late to complete the Report and letter

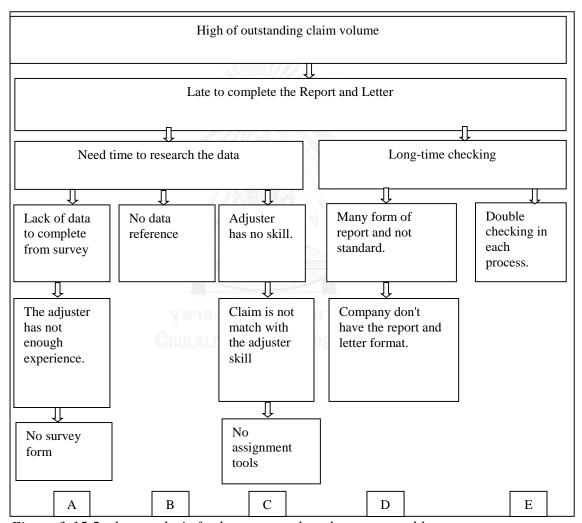


Figure 3-15 5 whys analysis for late to complete the report and letter

The cause of high outstanding of the company is occurred from late to complete the report and letter. From process analysis and discussion with the staff, the reason of late to issue the report could be concluded into 5 root causes as shown in the figure 3-15 from A-E.

For the root cause A, the first "Why" is replied as the adjuster need time to research the data. Why the staff need more time could answer as because of lake of the data that should be collected from site inspection. The reason of lacking is the adjuster having less experience and no reminder. Then the last why of this question is the company did not have the survey form to remind the staff about the required collecting data from site inspection.

For the root cause B, starting with the same question "Why the staff need time to research", the answer is the company did not have data reference. Then the staff has to research or study for the specific or special technique from other source such as in the internet, asking from the specialist, asking from the professional or study form the library.

For the root cause C, the vital reason of "Why the adjuster need more time to research" is the adjuster having less skill about the specific loss incident". For example, the mechanical engineer is sent to handle the collapsed building claim. The mechanical engineer does not have the knowledge about the building so he need more time to investigate. The reason of the no skill adjuster is the claim had been assigned to the wrong person as the company did not have the assignment tools to help the manager to assign the claim.

For the root cause E, the reason of late to complete report or letter is long time in checking period. From interview the team manager and the checker, they advised that the reasons of long time checking are the report having many form and they needed to adjust following the company standard and some topic disappeared. The reason of many form of report is the company did not have the report and letter format.

For the root cause F, from study deeply in the checking process, team found that there are two checking process from the team manager and the checker made the checking process to be double.

#### 2. Waiting taking place in the working process

From studying the working process, team found that there were the outstanding of waiting time at the two points, waiting for the Insured submitting the claim document and replying the Form of Acceptant, average 14 days for each activity. For this topic, the why could be answered into two reasons, F and G as shown in the Figure 3-16.

The reason F, late of the insured to return the document due to the adjuster did not follow up for the document. From interview the Insured about late reply, one of the interesting and significant answer is they did not know about the further process or concluded that the adjuster is not coordinate with the Insured. The reason of lack

coordination is the company did not have monitoring team to audit the working process.

For the reason G, from discussing with the adjuster about the long pending claim which stopped at the waiting document process, they advised that they could not contact the Insured or the Insured ignores to submit the document for many reason for example, cannot find the document, on busy and don't want to claim at all. The reason that the company had to wait for the replying are the company have not the criteria to fix those problems and wait with no deadline. The final answer of the why is the company did not have the team or monitoring team to find out the problem and create the criteria to force with.

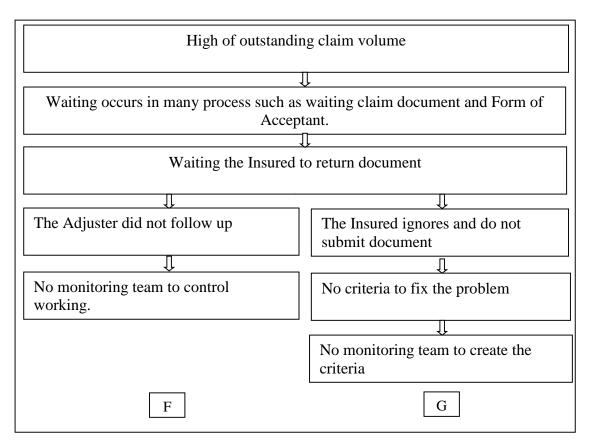


Figure 3-16 5 whys for waiting occurring during the process

## 3. The staff cannot influence their work.

Team separated into two parts as shown in the Figure 3-17. The first reason in H, the staff could not influence their work due to the adjuster did not have capability to handle the claim but having the other people that could do it better as the assigned claim did not match with their skill. Therefore the next answer of why is the company did not have the assignment tools.

For the reason I, the answer of staff could not influence their work, from discussion with the staff is the company did not have the clearly instruction, any report format and data reference to follow.

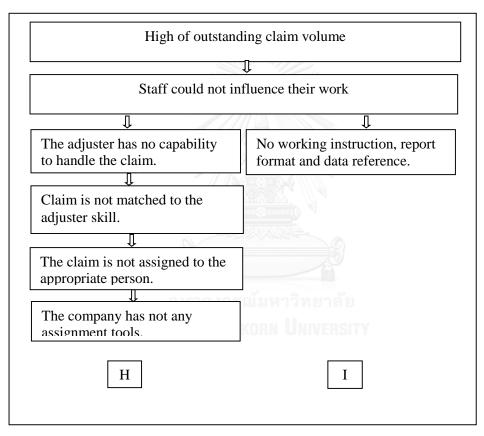


Figure 3-17 5 whys of staff could not influence their work.

#### Conclusion

From the process analysis VA NVA and Fish Bone Analysis, it is found that there was the significant problems occurred to the working process or method that needs to improve. The next process, ECRS will be used as a tool to improve the process.

From VA NVA, team found wastes such as waiting, extra processing in the checking process, extra motion and correction, occurred in the every area. Moreover, by using fish bones diagram, the root cause of the problem can be found. The list of the possible cause of wait and delays in the processes are as follows:

- 1. For doing report such as report no.1, repudiation letter, request document letter, proposal letter and final letter, the staff has their own way to write the report. The varied style of the report leads to long time of checking and rewriting by the checkers.
- 2. Many processes could be shorten and combine. On checking the process, there have duplicate checking process. The first checking process organize by the team manager to check about the completeness of the content and then send the report to the second checker to check the overall of the report and also the grammar checking before send out of the company. From VA NVA, the duplicate checking process wasted time in respect of extra processing and should be eliminated.
- 3. The Assignment process, the company has not an appropriate assignment basic. Once the claim is handled by inefficient staff or lack of skill, the problem and delay could occur in the process. Moreover, inappropriate claim handling will be cause of losing company performance in the customer view. Therefore, if the claim handled by the appropriate qualify adjuster, they will use less time to finish and should have no problem occurred.
- 4. The process has long time waiting. For example, there has waiting time after make an arrangement 240 minutes.
- 5. Print out the Email and the other document lead to waste the time and resource. The company has no the appropriate information management.
  - 6. The company has no survey form made lack of collecting data form site.
- 7. Waste time occurred during the process. In the proposal process, the staffs require long time to research for the claim items both of market price, model and also breakdown the quantity. The company has no data reference.

# **Chapter 4** Implementation

Punctuality is very important for this kind of business. It clearly shows professionalism and reflects company's performance. To survive in the business competition, the company needs to improve the time frame of internal operation to satisfy customers' need. Following is the discussion of process improvement implementation.

ECRS is used to improve the process by eliminate, combine, rearrange and simplify. The result from ECRS can show in the VA NVA Table after implement. Moreover, VSM is also used to improve the overall process and also the inventory during the process. Team tried to improve the process from push to pull system following Lean Methodology.

## **4.1 ECRS and Implementation**

ECRS is a technique to improve the operation process. ECRS consists of eliminate useless process, Combine process, rearrange and simplify. In respect of the process and Root Cause Analysis in the Chapter 3, Team pinpointed of the problem and defined the root cause of delay. To undertake and fix those problems, improve the work performance and also reduce operation cycle time will be suggested based on the engineering principal ECRS defined in the Process Analysis.

There are 8work elements having the wastes and problems and need to improve. The conclusion table of the ECRS Implementation is as shown in the Table 4-1.

Table 4-1 ECRS

	4-1 ECKS				EC	RS	
No.	Work Element	Waste/Problem	Improvement Ideas	Eliminate	Combine	Rearrange	Simplify
1	Doing Report and Letter	No form and required long time in checking process	Create report form and example sentence for recent case (Central Form)				х
2	Checking Process	Extra Processing: duplicate checking	Combine checking process from 2 to 1 process		X		
			Help the checker by create template and standard sentence				x
3	Assignment and Arrangement	Long waiting time occurred in the process	Establish assignment centre and scheduler				х
		Assign a new claim to an inappropriate adjuster	Create a "New Claim Assignment Form"				X
			Use "Allocation Framework" as a tool to assign a new claim				х
			Rearrange: the arrangement process before assign a claim to the adjuster			X	
4	Print out the Email and other document	Waste time and resource	Make the "Claim Folder to manage the claim information	х			Х
			Less print out paper and store in "Claim Folder"	х			
5	Survey	Lack of collecting date from survey	Create Survey Form and sent to		X		X

					EC	RS	
No.	Work Element	Waste/Problem	Improvement Ideas	Eliminate	Combine	Rearrange	Simplify
			the Insurer instead FA				
			Eliminate FA and checking Process	X			
6	Proposal	Waste time to research, checking price	Create "Data Centre"				х
7	Form of Acceptance and Final Report	Waiting time for FOA	Combine and rearrange process		X	х	
8	Monitoring and Measurement	Long Pending claim almost a year	Create monitoring team			x	
		No monitoring	Create criteria " Long Opened Claim Form" "28 Days Letter"			X	



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## 4.1.1 Implementation of Doing Report and Letter

Working element related to the doing report or letter such as report no.1, request document letter, proposal letter, deny letter and final report. From the current doing report process leaded to the problem that the adjuster waste too much time to finish each report because the company had not the report templates that make the staff used more time to write. Moreover, the checker has to review the report in every detail and difficult to check and revise into the same standard of the company such as correcting in grammar, correcting and completing in details of the claim, correcting about the policy coverage and liability.

Therefore "Simplify" is used to improve the process. Team simplified the process by creating form and example sentence and kept in the central form that every staff can use and copy wording from the template. Team collected the example sentence that always uses and the sentence is checked by the checker. The example sentence is as shown:

#### "Policy Liability

- In case that the policy has the coverage

"Given the circumstances of the loss, policy liability attaches as no exclusions apply."

- In case that has not receive the copy of full policy wording yet

"We await a copy of the entire policy with all the terms and conditions, including exclusions, where we will comment on this aspect in our next report."

The sentence will be used to comment on the policy liability comment. Moreover, the standard report template are also created and stored in the "Share Drive" that the staffs are able to use as the reference.

Finally, the Staff uses less time to complete and make it easier for the checker.

## 4.1.2 Implementation of Checking Process

From VA NVA, The working process had been analysed, and found that there are duplicated of checking process.

Team desired to "<u>Combine</u>" the duplicated checking process into 1 process. Team informed the staff to send the report to the Checker who is able to check all contents in the report and also the grammar by adding the report in the checking Folder in the share drive.

The checker has experience of claim adjusting and specialize about the adjusting process and also the policy coverage. Moreover, the checker is a native

English language, that he could rewrite the sentence to the correct and look professional. From combining the process, the time has been reduced.

Moreover, "<u>Simplify</u>" by creating the template and example of the recent sentence could help the checker reviews the report faster because he does not need to rewrite all sentences.

## 4.1.3 Implementation of Assignment and Arrangement for Survey

This work element combined two sub-processes together. From Analysing the process by using VA NVA, team found that there had waiting time occurred after made an arrangement for survey average 240 minutes.

Team desired to "<u>Rearrangement</u>" the working process. The arrangement process is switched from survey process to be in the assignment process. After the scheduler received a new claim assignment from the Insurer, the scheduler will contact to the Insured for making the arrangement before assign a new claim to the Adjuster.

The improvement can reduce the waiting time for survey and the scheduler can choose the appropriate adjuster better than the original method due to the best time fit for survey and eliminate waiting time.

The improvement can reduce the waiting time for survey and the scheduler can choose the appropriate adjuster rather than using the original method due to eliminate waiting time within survey processes.

On the Assignment Process, Team "Simplify" the process by establishing a scheduler as an assignment centre to receive and also distribute the claims to appropriate adjusters.

In some types of claim, there are additional requirements such as skill, background or experience adjuster to handle the claim. If the adjuster has not enough adjusting skill, the problem might be following and become a cause of delay to settle the claim. Moreover, inappropriate claim handling will lead to losing company performance in the customer view. Therefore, if the claim is handled by the appropriately qualified adjuster, they will properly spend time to finish and should have no any problem occurred.

It is found in previous process that there is no criterion when assigning claim to proper adjuster. For example, when the claim is assigned by the Insurer, the claim will be distributed to the available adjuster in the office. From this situation, it is possible that the claim might be assigned to the person who is lack of experience and no efficiency or even workload. Then, the result of inappropriate assignment will not match the customer expectation.

The customer expectation against the company service might depend on claim costs, thus it is necessary for the manager to take into account when selecting adjuster to handle with each issue. Team has created resource assignment framework which can be explained as follow.

The Allocation Method is created to help the manager assigning a new claim to the appropriate adjuster according to sentence "Put the right man on the right job". This tool will help the manager matching the work and manpower.

For implementation, Team started to inform the Insurer by Email in order to assign a new claim to the scheduler. Then Team created "New Claim Assignment Form" as shown in the Figure 4-1 which helps the scheduler collecting the important information from the Insurer and also the contact person or the Insured. The more initial information from both Insurer and Insured, the more helpful for adjuster to plan their work and also choose the most appropriate adjuster to handle the claim.

The New Claim Assignment Form separated into 2 sections; the first section is for the information from the Insurer who assigns a new claim. The examples of the question are the Insurer Company, name of the instructor, contact person, date of loss, location of loss, nature of damage, policy number and copy of the policy wording, and special comment. The Second section is the information from the Insured. The required information is Brief Circumstance, item damage, estimated loss and also the appointment date and time.

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New Cl	aim Assignment Form
Insurer information	
Insurer/ Instructor:	A Insurance Public Company Limited
Type:	Contractor All Risk Policy
Policy no.:	2013-xxx-xxxx-xx
Insured's Name:	B Land and Property Co·, Ltd·
Contact Person:	Mr· Jakkrit Lert (081-865-xxxx)
Date of Loss:	01/02/2014
Location of Loss:	Ladya Road, Klongsan, Klongsa, Bangkok
Nature of Damage:	Water damage during testing and commissioning
Initial Loss (Baht):	Wooden floor approximately 500 Sq·m·
Broker/Tel:	Not define
Comment:	Not define
Insured's information	
Brief Circumstances:	The water leaked from the fire hose on
	the 17th floor during testing the fire
	extinguish system·
Item Damage	Wooden floor of 10 rooms and
	approximately 500 Sq·m·
Estimated Loss (Baht)	Baht 400,000
Appointment (Date/Time):	02/02/2014
Complexity	Small
Amount of Loss	Small
Assignment Distribution to:	OL
Date of Assignment/ Time:	1/2/2014/ 1000 hours
Claim no.	2014xxxx/OL

Figure 4-1the example of a filled Survey Form

Then the scheduler uses the collected information to choose the appropriate adjuster by considered:

- Type of loss
- Estimate loss
- Appointment date and time
- Appropriate adjuster
- Available adjuster

The first three factors, the scheduler had already defined in the New Claim Assignment Form. For the Appropriate adjuster, team create "Adjuster Classify Grid and Resource Port" help the scheduler to define a level of the adjuster and the appropriate adjuster to handle the claim is as shown in the Figure 4-2.

The efficiency of the adjuster will be defined into 2 basics which are

- The degree of the complexity that the adjuster is able to handle, defined on the Y-axis.
- The claim amount that the adjuster has authorised to handle, define on the X-axis.

# 1. Complexity Y-axis

For the degree of complexity, Team used the Selection Matrix (Barkley and Saylor 1994) is a technique for rating issues base on related criteria. Team defined the type of claim following the degree of complication as shown in the Table 4-2 by considering in 5 aspects, work duration, number of party involved during the claim operation, management skill, and specialist required negotiation skill. Each type of claim had given the score and then rank. Damage to contractor work is less complicate and get the score 6. Damage to Third Party's property, injury or dead, Vibration Removal and Weakening of support and total loss are source following the difficulty.

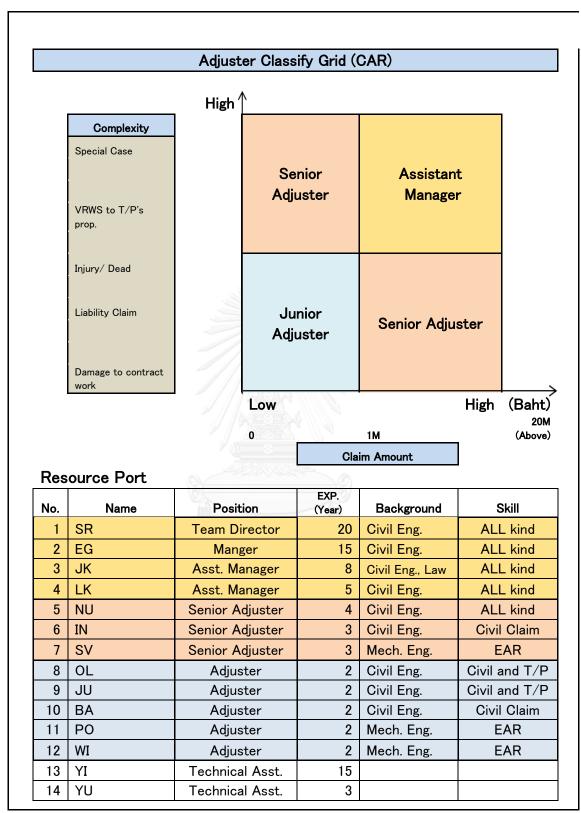


Figure 4-2Adjuster Classify Grid and Resource Port

abie 4-2 Complexity	of each Clair	n 1 ype				
Complexity	Work Duration	No. Of Party	Management	Specialist	Negotiation	Score
Contract work	1	1	1	2	1	6
Third Party prop.	2	3	2	2	3	12
Injury/ Dead	3	3	2	2	4	14
VRWS	3	5	3	5	4	20
Special Case	5	5	5	5	5	25
Note: 1 - 5 (Easy	- Hard)					

Table 4-2 Complexity of each Claim Type

#### I Damage to Contract Work (Property Section I and II)

This type of claim seems to be the easiest and less complexity than the other type of claim. We refer to the normal wording of the CAR Policy as follow:

"COVERAGE

Section I, II - Contract Work

All Contract Works, whether permanent or temporary materials incorporated or for incorporation therein, Temporary Buildings and their contents and all other property or equipment of whatsoever nature (other than Constructional Plant and Equipment) the property of the Insured or for which they are responsible whilst at the project site or elsewhere in the territorial limits including whilst in transit or storage and M & E work"

Therefore, there are two primary aspects that the adjuster has to define from the incident.

<u>First</u>, to define that the damaged property is being the insured property or not, the adjuster has to request the Bill of Quantity (BOQ) from the Insured and then makes sure that the damaged property is identified as the contract work in the BOQ.

<u>Second</u>, whether the cause of damage is covered by the policy, the adjuster has to check all exclusion and the special clause of the policy which are the basic of the policy.

From the data record, this type of claim use approximate 3 weeks to finalise the claim. The staff has to contact only with the construction site. The claim is easy to manage. The cause of loss is easy to define and investigation. The staffs do not need to negotiate foe the loss as the quantity of loss has to clarify together with the Insured and the price of the damage item has been defined in the Bill of Quantity and contact work.

## **II Damage to Third Party Property (Section III)**

For this type of damage means that there has a damage to the Third Party's Property due to contract work activity. The standard coverage is as shown below.

# "Section III – Third Party Liability

To indemnify the Insured for Legal Liability arising out of death of or bodily injury (including disease) to persons and / or loss of or damage to property arising out of or in connection with or execution of the contract work."

This type of claim is more complicated than the first type because the adjuster does not only investigate the liability of the contract work but also deal with the Third Party or the owner of damage property that could make the claim more complicated. The negotiation skill is required to influence the claim.

# III Injury / Dead

For the no liability claim, the adjuster may know since they receive the claim from the Principal. Once the Adjuster has a call for the first contact to the Insured, the primary details can show that the policy has a liability or covered or not. In order the policy has no liability, on the site inspection all significant detail must be collected completely. Then the adjuster can deny the claim at the early state of the claim process.

# IV Vibration Removal and Weakening of Support to Third Party's property (VRWS)

Vibration Removal and Weakening of Support is a special clause in the policy. This clause establishes to cover the damage to the Third Party property due to any activity make the Vibration, Removal, and Weakness to the Third Party Property such as building and structural property due to the Insured's contract work. For example, the damage to the Third Party's building due to the Insured's sheet piling work. The vibration from sheet pile installation and removal make as effected to the building stability. Then the loss from the incident will fall within a special clause, Vibration Removal and Weakening of Support.

However, if the policy has no this special clause, this type of damage will not cover by the policy and other details affected to the policy coverage.

Therefore, the claim required the experience adjuster to analyse the level of damage compare with the policy wording.

## V Total loss or large amount of claim or special case

Total loss means the contract work was totally damaged from any cause such as fire, flooding, explosion etc. Moreover, the large loss also adds in these categories.

The large loss is complicated both of cause of loss and the details of the claim. Therefore this type of claim needs a good skill of management. As a result, the adjuster who handles those cases must have a good management and professional.

#### 2. Claim amount X-axis

As shown in the Table 4-3, the Office of Insurance Commissioner (OIC) has the regulation that all adjuster had strictly regulated. Therefore, the manager has to check the primary reserve of the claim and assign to the appropriate adjuster follow the OIC regulation. If it is over Baht 1,000,000, the name of the adjuster on that claim must be the licensed adjuster or being as Assistant Manager above.

Table 4-3 Regulation of claim handling

Amount of loss	Handled by
Baht 1,000,000 or more	Licensed adjusters only
No limit	Any adjuster

After choosing the level of the adjuster, then the scheduler checks the available adjuster in the "**Resource Port**"

For Company, the Adjuster is the key player to operate the business. To maximum the capacity and efficiency, the manager should provide useful utilisation and allocate the claim to the appropriate people.

The efficiency of the adjuster is depended on the experience, background knowledge, and the special skill. The benefit of Resource Port is the manager will know better on the manpower they have.

Then the Scheduler checks the "**Daily Diary Schedule**", Figure 4-3 which shown the appointment of each adjuster before send the Email and assign a new claim to the adjuster.

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DAILY DIARY SCHEDULE	Y SCHED	ULE					
			* C = Info Collection	Collection	* S = Survey		
			* VL = Vacation Leave	tion Leave	*M = Meeting		
			* SL = Sick Leave	Leave			
02/02/2014	Time	ABC ref.	Purpose	Client's Name	Contact	Contact number	Location
ST	1000 hours	2014-xxxx	s	Tiger crown	K Thana	081 xxx xxxx	Rojana
EG			ΔΛ				
JК	1300 hours	2014-xxx	M	C-P Logistics	Khun Kobkhun	085 xxx xxxx	Amata Nakom
LK	1000 hours	2014-xxxx	S	BBC Construction	K Kaian	081 xxx xxxx	Chiangmai
NU	0900 hours	2014-xxxx	s	Best Construction	K Mat	085 xxx xxxx	Sukhumzit
NI							
ΔS							
TO							
Ju			VL				
BA	0830 hours	2013-xxx	S	Mega Construction	K Bird	02 xxx xxxx	Samutprakam
PO							
WI	1100 hours	2013-xxxx	С	Star Project	K sath	02 xxx xxxx	Sathorn

Figure 4-3the example of a Daily Diary Schedule on 2-2-2014

For "<u>Simplify</u>" the Assignment Process, Team create the worksheet in the Excel as "Claim Assignment and Schedule" as shown in the Figure 4-4 and stored in the share drive of the office. The Instruction of the Claim Assignment Process as shown in the Table 4-4.

Team informed to the scheduler could be concluded as follow:

- 1. Receive a new claim and fill in the "New Claim Assignment Form" store in the share drive, "Claim Assignment and Schedule"
- 2. Contact to the Contact Person which the detail is provided by the Insurer Company and then fill in the "New Claim Assignment Form"
- 3. Checking the level of claim handler by using "Adjuster Classify Grid and Resource Port"
- 4. checking available on appointment date by considering "Daily Diary Schedule"
  - 5. Assign a new claim to the appropriate adjuster.

Table 4-4 Claim Assignment Instruction

Assignment Process	Action
1. Receive a new claim from the client	- Fill in the New Claim Assignment in
	the "Insurer Area"
2. Contact the Insured contact person	- Fill in the New Claim Assignment in
17	the "Insured Area"
	- Make an arrangement
3. Analyse the appropriate adjuster	- Using the Adjuster Classify Grid to
23	define the Class of the adjuster
	- Using the Daily Diary Schedule to
จูฬาลงกรณ์มห	define the available adjuster
4. Assign a new claim to an Adjuster	- Contact to the Adjuster and confirm
OHOLALONGKONN	the arrangement with the Insured by
	Email
	- Open a new claim to the system



Figure 4-4 Claim Assignment and Schedule

For example, the Figure 4-1, the new claim assignment is related to the damage to contract work during tasting and commission and the estimate reserve is approximately Baht 500,000. Refer to the Adjuster Classify Grid and Resource Port, Figure 4-2, the example claim will be classified into the Low level of complexity and claim amount and therefore the claim should be assigned to a junior adjuster. Then checking the Daily Diary Schedule, which on the example DDS, Figure 4-3, the available junior adjusts have 2 staff, then the manager assigns a new claim to OL who has the background knowledge in Civil Engineering.

The Claim Assignment Framework is a useful tool for the Manager of CAR team to assign the claim to the appropriate person. The benefits of "Claim Allocation Framework" are as follow:

- 1 The manage has a tool to choose the appropriate adjuster
- 2. Adjuster can be assign the claim, can prevent overload working
- 3. The adjuster handles the claim based on their skills
- 4. Print out the Email and Document

### 4.1.4. Print out the Email and other document

From review the process, the waste time from print out the document push through in every process. Moreover, print out the paper is also wasted the resource.

Team desired to "<u>Eliminate</u>" the waste of time and resource by create "**Information Management and Information Sharing Centre**"

"Information Management" has been created to manage the claim information since open until close the claim. The Technical Assistant or TA will create the folder in share drive. All information, reports, letter, email, photo and policy will be kept in each folder. To create the claim folder could help the company reduce the waste of resource and does not need to print put the paper. To be systematic, all details and information of the claim have to manage and store in the same place. The Information can be reviewed and controlled easier.

The current situation, the adjuster normally stores the information received in their laptop and print out the paper to the paper folder.

The company has a Share-Drive that every adjuster who uses the company laptop or computer can access to store and retrieve useful information in S Drive.

To manage the claim information, the CLAIM Folder as shown in Figure 4-5 is established for manage all claim information. The folder of each information which are Letter Issued, Report Issued, Miscellaneous, Photo, Plant Layout, Policy, Quotation and Claim Status will be created in every claim folder to manage and categorise the information.

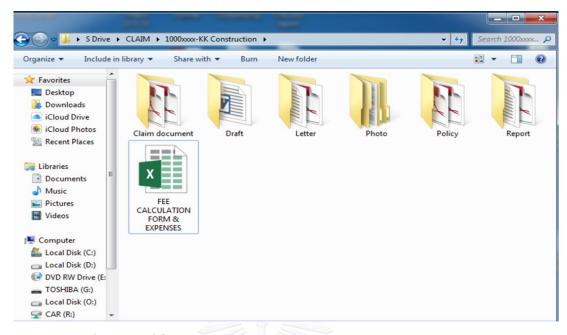


Figure 4-5Claim Folder

The objective of creating the folder is to share and store all claim information into the Share Drive. The manager can monitor and check the current situation of the claim.

The adjuster will be announcing to manage all claim information by saving all information they have into the claim folder. If the information were the hard copy files, they have to scan files and keep them in the share drive. Moreover, the issuing report and letter should be added in the claim folder.

The benefits of store all information of the claim in the CLAIM Folder in Share Drive is as shown below.

- 1. Team could review all information and available for auditing.
- 2. The CLAIM Folder will be the central knowledge. The other adjusters can retrieve useful information in the Folder as the reference for their own claims. For example, to consider the policy liability on the similar circumstance of loss and the same policy, there can shorten the task time for gathering the important information during investigation, if the adjuster has a guideline from the previous claim.
  - 3. There is more systematic about information management of the company.

### 4.1.5. Survey

During Survey, to prevent the lack of collecting data, Team desires to "Simplify" the process by create "<u>Survey Form</u>" shown in Figure 4-6 and then "Combine" the survey and First Advice Process by sending the Survey Form to the Insurer instead the First Advise.

Team creates the Survey Form as shown in the Figure 4-6. There are the place to fill in which can be separated into two parts Claim Information and Statement. Team informed the team member to use the Survey Form and then scan and send to the Insurer by Email.

The example of the fill in Survey Form is as shown in the Figure 4-6, the staff who is assigned to handle the claim has to survey and interview the Insured's contact person. In every topic should be completed from the site inspection. At the end of the survey form, it is required the contact person to sign with the adjuster and requested them to have a photo copy to be an evidence. After the adjuster comes back to the company, the Technical Assistance scans the Filled Survey Form and then email to the Insurer and also stores in the CLAIM folder.

The Survey Form can reduce the working process but provide the same information required by the Insurer.

The benefits of create the Survey Form and combining process are as shown below.

- 1. Prevent the lack of collecting date form site inspection
- 2. Shorten the process but the customer has the same value added from the company.

For the Survey Process, Team informed to the team member in order to plan the route way before leaving to the site inspection. The planning can help the adjuster cut of the travelling time to site inspect by avoid the traffic.

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	Survey Form
	Company Reference: 2014xxxx/O
Claim information	
Insurance Company	A Insurance PCL· / Khun Surat L·
Policy Number	2014 - xxxx - xxx
Name of Insured	B Land and Property Co·, Ltd· as the principa
	and/or other contractors
Principal	B Land and Property Co·, Ltd·
Project	Best Condominium
	Construction of 8 storey-condominium and
Description of Work	related system
Location of Contract	Ladya Road, Klongsan, Klongsa, Bangkok
Location of Loss	Ladya Road, Klongsan, Klongsa, Bangkok
Date of Loss	01/02/2014
Date of Instruction	01/02/2014
Date of Survey	02/02/2014
Statement	
Insured Contact Person	Mr. Jakkrit Lert (081-865-xxxx)
Position	Project Engineer
Company	ASA Construction Co., Ltd. (Main Contractor)
Circumstance:	At approximately 1000 hours on 1/2/2014,
	they found the floor inundated with water bu
	the hose reel valve had already been closed.
	They immediately mobilised manpower to clean
	and dry the affected area. Unfortunately, the
	17th Floor had already been flooded and water
	had flowed down the fire escape staircase to
	the 15th Floor causing damage thereon
Extent of Loss	Laminate floor of 10 unit on 15th floor
	approximately 500 Sq·m·
Reserve	Baht 400,000

I hereby certify that the above mentioned are true and correct.

 Signature: JL
 Date: 2/2/2014

 Adjuster: OL
 Date: 2/2/2014

Figure 4-6 Survey Form

### 4.1.6. Proposal

From interview and analyse the process, team found that a lot of wasted time occurred during the proposal process. The staff wasted time from investigating and adjusting the claim amount. The adjusting of claim process includes of creates the adjusting table, assessing the claim amount by checking the recovery method, scope of claim and also the claim price.

Team desire to "<u>Simplify</u>" the process by created the Information Sharing Centre to be the reference. The Data centre will be created as a folder in the company' Share Drive. The example information that Team established and stored in the Data Centre folder are such as Construction All Risk Training, construction method, sheet piling work method, the detail of the policy and standard policy wording, market price, report example, report and letter format as shown in the Figure 4-7.

The example of the construction information for the staff learning is as shown in the Figure 4-8.

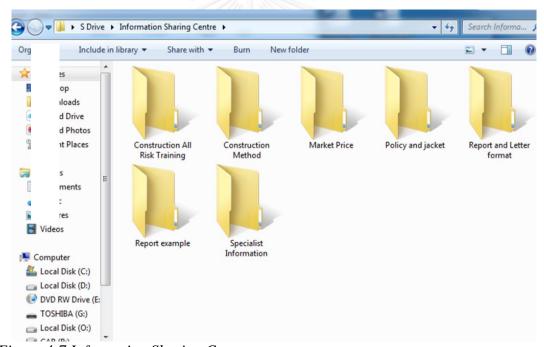


Figure 4-7 Information Sharing Centre

## ขั้นตอนการก่อสร้างอาคาร คสล.

- 2. งานฐานราก
- งานเสาเข็ม ได้แก่ เสาเข็มตอก และเสาเข็มเจาะ
- งานทดสอบเสาเข็ม
- ารณีเสาเข็มตอก ทดสอบในขณะตอก Blow count
- กรณีเสาเข็มเจาะ ทคสอบหลังจากเทคอนกรีตเสร็จและเสาเข็มได้กำลัง โดยใช้เครื่อง siesemic test เพื่อตรวจสอบความต่อเนื่องของเนื้อคอนกรีต
- 🔹 งาน sheet pile (ในกรณีใช้เสาเข็มตอกและก่อสร้างอาคารในย่านชุมชน)
- งานขุดดิน
- งานตัดหัวเข็ม
- งานผูกเหล็ก
- งานงานตีแบบและค้ำยัน
- งานเทคอนกรีต

Figure 4-8 Example of Orientation's Presentation (Construction Process)

The benefit of created the Data Centre is as follow.

- 1. The staffs use less time to compare the claim price with the market price.
- 2. The staff will not waste time to research for the specialist data such as the special construction method.
  - 3. The proposal letter process is simplified shorten.

### 4.1.7 Form of Acceptance (FOA) and Final Report

From recording data and process analyse, Team found that there has waste time during the company waits the Insured to send the Form of Acceptance to the Company. For the ordinary method, the company had to receive and wait for the Form of Acceptance before closing the claim. For the Improvement idea, Team desired to "Combine" and "Rearrange" the Form of Acceptance and Final Report Processes together.

Team "combine" the process of the FOA and Final Report together as the same process. From combining, the sub processes were reduced from 20 to 11 processes.

Team "<u>rearrange</u>" the process by less waiting time for returning the FOA. The company will send the final report to the Insurer and suddenly close the claim without waiting the FOA.

The company can minimise the processing time by less the waiting period during the Insured submitted and return the Form with signature and other support document.

For the final report, there are the format sentence added at the Concluding Remark instead the original sentence.

### "CONCLUDING REMARKS

We have sent the signed Form of Acceptance to the Insured on DATE ISSUED FOA. Once received, we shall forward same in order that Insurer's may release payment to complete matters. In the interim as this would appear to include our involvement, we confirm having closed our file and attach hereto a note of our fee and expenses for Insurer's usual kind consideration."

From implement this task, the Company does not need to wait and waste the time for returning the Form of Acceptance.

### 4.1.8. Monitoring Process

From analyse the root cause, Team found that the company has no the monitoring system. Therefore the problem occurred in the process could not be found and fixed. From reviewed the file, Team also found that there are some files pending over 1 year from many reasons. Therefore if the company remains those claims in the system, all expenses will be the burden cost of the company. Moreover, also the performance of the staff could not measure.

Team desired to improve the process by "Rearrange" the process by creating the criteria to fix the current and further problem and also establish the claim control.

The monitoring team, the responsibility of the monitoring team is to manage the claim and also fixed the problem occurred in the current operation.

To establishing the monitoring team, the goal set is to reduce the duration of the claim and manage work following the standard of the company.

The objectives of setting the monitoring team are as follows:

- 1. Remark the delay claims and create the criteria to manage those delay problems to shorten the duration of each claim by closing the claim if possible.
  - 2. Reduce the outstanding claim

Team has set up the Monitoring Team and created the criteria to response the problems. Then the implementation will launch into the CAR Team to response to the problem.

Team establish the head of monitoring team is a Manager of CAR Team who has authorised to suggest the adjuster to implement the problem solutions. The team also includes a technician Assistant of CAR team who help the Monitoring Manager gathering the outstanding status of each adjuster. The Monitoring Team listed up the claim opened over 270 days in the "Long Claim Open Form" of each adjuster stored in the share drive and the review the claim status as shown in Figure 4-9.

Long Claim Open Form included with the file Reference, Name of the Insured, Date of Loss, Assignment Date, Survey Date, Last Receive Document, Status, Description and Contact Person.

From review the outstanding claim which is opened over 270 days, Team found the two major problems that obstructed the claim. Over 50 % of long pending claim occurred from 2 reasons, waiting for the claim document and waiting for the Insured to return Form of Acceptant.

For the Form of Acceptant, Team had already fixed the problem by rearrange the working process by combining the FOA and Final Report process together and also cut the waiting time for returning the FOA from the Insured but send the final report to the Insurer and close the claim.

However, for the claim document, team created the "28 Days Letter" to inform and expedite the Insured.

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contact and quotation Description Waiting for rental Doing Proposal Follow up Waiting document Waiting document Waiting document Waiting document Waiting document Waiting FOA 281.00 | Waiting FOA Waiting FOA Status Proposal 288.00 331.00 299.00 338.00 320.00 274.00 365.00 321.00 Duration 30/01/2014 18/08/2013 06/06/2013 Survey Date | Last Doc Receive 25/06/2013 05/01/2014 30/09/2013 12/12/2013 02/05/2013 20/01/2014 16/03/2013 Checked Date 17/04/2013 25/04/2013 02/05/2013 30/01/2013 27/02/2013 06/03/2013 16/03/2013 16/03/2013 06/04/2013 Assignment Date 15/03/2013 05/03/2013 17/04/2013 24/04/2013 06/04/2013 01/05/2013 30/01/2013 26/02/2013 16/03/2013 30/2/2013 15/03/2013 25/02/2013 13/03/2013 06/04/2013 14/04/2013 Surrise Construction 24/04/2013 01/05/2013 30/01/2013 00 00 Underground Work Best Construction Star Construction Long Claim Pending for LK Beach and Sun Name BSY Co., Ltd. Mr. Somchai Sea Co., Ltd. Sand Ltd. 2013xxxx 2013xxxx 2013xxxx 2013xxxx 2013xxxx 2013xxxx 2013xxxx 2013xxxx 2013xxxx Reference 9 Š.

Figure 4-9Long Claim Open Form

### 28 Day Letter

The details of the 28 days letter is to inform the Insured that if they will not reply or update the claim status within 28 days, the company will assume that the Insured does not want to claim for the indemnity anymore.

This letter will be sent to the Insured in respect of:

- 1. Could not contact the Insured
- 2. The Insured seems not to pursue the claim

However, before launching these criteria, the company have to inform the Insurer which is the direct customer of the company that the criteria are the new policy from the company. Once close the claim and have some issue, the company will re-open the file. The example wording in the 28 Day Letter is as shown in Figure 4-10.

The benefit of the 28 days letter is making the claim more important in the Insured's vision. This could stimulate the Insured to reply or response to the adjuster. Once the Insured has not reply, the adjuster can close the claim and charge service fee from the customer or the Insurance Company.

The monitoring process will be followed up by the monitoring team every month.

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Date

Dear Sirs,

RE: Insured : Xxx

Our Ref : Xxx Policy Number : Xxx Date of Loss : Xxx

We note that despite having formally written to you requesting further documentation/information, and having issued numerous reminders, we regret that to-date we cannot trace any reply from you.

Hence, this may have been an oversight on your part, although we are unable to leave our file open in abeyance indefinitely, and we respectfully request that the necessary documentation/information is submitted for our review within the next 28 days.

We trust that if you are seriously intending to pursue this claim that you submit the relevant documentation/information within the timeframe stipulated above and if we fail to receive the relevant documentation/information within the timeframe stipulated above, we shall assume that you no longer wish to pursue this claim and advise Insurers to close their file accordingly.

The Adjuster handling your loss is Khun XXXXX on Extension xxx or their Mobile is 08X XXX XXXX and Email is Xxxxxx@ABC.co.th.

Yours faithfully,

Adjuster Name

Figure 4-10 28 Days Letter

### **4.2** Value stream mapping (After improvement)

In previous section, ECRS technique is adopted to improve activities inside the process and it led us to a review of the whole process by using value stream mapping technique to create a new flow from upper to bottom stream. The application and tools in value stream mapping helps us to understand the flow of material and workers and to be able to prioritize work tasks in a way that can maximize resource and minimize wastes along the process. The point is improvement activity never ends at once, thus it is necessary for everyone to continue working on the activity to figure out the way to make flow as smooth as possible.

When looking at the process as shown in the Figure 4-11, Team found that it is crucial important to turn the push system to pull system, but the single flow is still the ideal one. Therefore, team has adopted the concept of FIFO (First in First Out) and supermarket which allow inventory where is necessary in order to create visualization for everyone to understand the mechanism in the procedure.

Next, team has applied the Kanban System as the way to better improve communication among stations. The withdrawal and production Kanban are the key technique that works together to create a pull system. Generally, when considering the flow in previous process, there are some tasks related to external parties, e.g. insured and insurer, and sometimes it takes a long time and creates wastes in the process. It is possible either customer needs time in documentary process or the adjuster does not follow on the document collecting process. Therefore, the solution is how the team can shorten those areas to be more practical with better corresponding from external customers. Following is the discussion of how the application of value stream mapping has been applied to improve the process.

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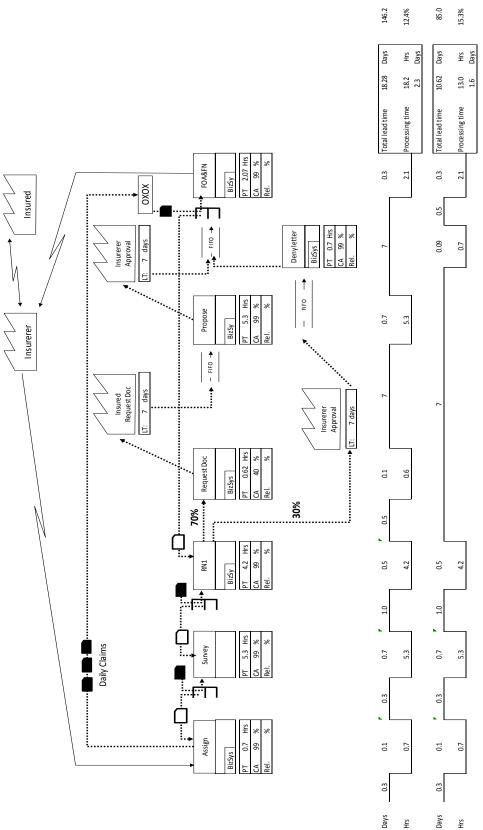


Figure 4-11 Value Stream Mapping (After improvement)

Firstly, it is important to not create a push system to the next station, so when the claim is received, the upfront manager needs to make sure that the job is released in a way that synchronize with the downstream processes. Therefore, the received claims are turned to withdrawal Kanban corresponding to the customer order and placed in a load-levelling box at the last station where is considered as a pacemaker.

The workers at "Survey Process" starts removing the withdrawal Kanban when a production Kanban arrives from the downstream process called "RN1". In the meantime, it allows the manager to slot folders into the first supermarket. The lost adjuster who receives the task upon his/her qualification is assigned to conduct the survey and feed the result to the second supermarket for the next station where the first report is issued to verify policy coverage.

### Out of policy coverage

The first report is forwarded to the insurer for approval of rejecting the insurance claim. The approval process takes a week in the new flow. When the approved claim issues are returned to the firm, the secretary who plays role as a runner needs to return the folder in a FIFO lane for the adjuster to issue a deny letter, and then in turn to the last station which is FOA&FN process.

The supermarket is adopted at this point to make sure that the returned folders are processes at the right time. The folder is placed in the last supermarket before being pulled off for the last process. As discussed earlier in previous chapter, the combination between two last processes which are FOA and FN can make improvement to the process as some sub-processes are considered as one kind of wastes in terms of lean.

Therefore, the runner will put the folder when withdrawal Kanban is removed from the supermarket allowing the process to flow better. Finally, the final report is issued and put into the folder before being sent to the insurer for collecting service fee.

### **Coverage Policy**

If the claim is verified to be covered by the policy, the first report is sent to compile with other documents before being passed to the insured for requesting support documents which takes a week to get replied. When the required document is returned from the insured, it is filed in the folder and place in a FIFO lane for the adjuster to issue the proposal at the next station.

After that, it is important to have it approved by the insurer, so when the proposal is finished, it takes another week for the approval before the adjuster is authorized to issue the final report. Thus, when receiving approval letter from the policy holder, the folder is slotted into the last supermarket waiting for the adjuster to remove the withdrawal to the last process. Finally, when the final report is issued, it is sent to the insurer for collecting money.

### 4.3 Takt Time (After)

Takt Time after improved is as shown in the Figure 4-12. The details of each process are as follow:

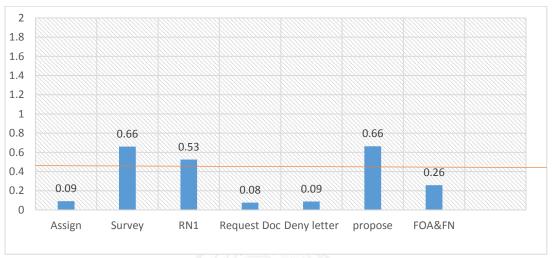


Figure 4-12 Takt Time (After)

### **Assign**

To bring down the cycle time, team has applied tools and technique to simplify job assigning process. The template has been created to ease decision making. It makes the process to be more effective and powerful as the tool helps to select the right person to fit the right job at time being. Therefore, it clearly works after the implementation the cycle time has gone down from 0.13 to 0.09 day per issue.

### Survey

The concept of rearranging provides improvement idea to decrease cycle time in surveying process. When considering sub-activities, team found several kinds of wastes, waiting time and defects, which can be minimized to improve the process. The adjuster who is available is selected to be on the go, while in previous process the selected person might be busy and that will delay the site visit which affects to processing time. Moreover, to be well prepared for the travelling route could shorten the time on the road and this is the thing that has been adopted in the new process. In addition, to make sure that all required information is collected from the site inspection, team has created template which is useful and adjuster to track for necessary evidence. The result is the cycle time has gone down to 0.66 day per issue. Although, it is still above takt time, it is clearly that the gap has been brought down to near the expected target line.

### Report no.1

Collected information from site inspection is main body when issuing the first report. Thus, the consequence from the improvement in previous process allows time reduction in this workstation. Adjuster can reduce time as he/she no need to ask customer for additional information and re-visit for more evidence. Moreover, team has created the template that eases adjuster to explain the report story. Moreover, duplicated job is found in the process before improvement as the first report was reviewed by both leader and checker which is actually can be done by one person. Therefore, in the new process, there is only one person that is the checker who reviews the output before being submitted to external party.

### **Request Document Letter and Deny Letter**

Creating letter format is the idea of how team can decrease time in requesting document and issuing deny letter because it does not make sense to repeat the content every time when processing these two activities. Therefore, drafting the format is clearly the idea that helps adjuster to minimize time in drawing paper work to customers and it results in saving time and reducing cycle time in the workstations.

### **Proposal**

The resource centre provides information for adjuster when issuing proposal document. Some adjustment is required in reconciliation process where customer expectation toward claim amount meet the reality. The adjuster needs to figure out for reliable reference and reasonable explanation, thus it clearly takes time to find out the Information. Data Centre could provide a wide range of related reliable information for adjuster to easily track for reference and it allow time reduction in doing research while giving more quality update data which is available on shelf for making a proposal. During the implementation, it has been found that the cycle time can be decreased to 0.66 day per issue which is quite successful when comparing to the previous process, but further kaizen is still thing that team will raise as the next issue in order to create flow.

### **FOA and Final Report**

Team has decided to combine between FOA (Form of acceptance) and FN (Final report) to eliminate non-values added activities, waiting and transportation. Before improvement, the firm has to wait customer to sign off the FOA before submitting final report to insurer, but actually most of customers take time in this process and causes payment delay to the firm. To solve this problem, team has agreed with insurer to submit final report first and follow up customer for FOA which will be responded by secretary. Therefore, the cycle time of these two processes can be reduced to 0.26 day per issue.

### 4.4 VA NVA after implementation

From implementation the ECRS, the number of main process is reduced from 9 processes to 8 processes by combining Form of Acceptance Process with the Final Process. From the implementation, the company can avoid the waiting time of the returning Form of Acceptance and able to close the claim faster.

For Sub-Process, the overview, the Number of sub-process can be reduced from 67 to 43 processes. Team also rearrange re-arrange by making an arrangement before assigning the claim to the adjuster. Moreover, Team also simplify the process by creating the Scheduler, New Claim Assignment form and Allocation Framework.

Team also create the "Survey Form" to simplify the process and eliminate the First Advise Process.

The most significant is occurred from eliminate the duplicate checking report and also make the report has more formats and created a standard sentence. Moreover, the Information Management can reduce the extra motion and waste of resource.

Moreover, Team also establish the Monitoring Team to fix the specific problem about the long claim pending almost a year. The efficient criterion for the outstanding claim is to create the 28 Day Letter. Team can close the long-time pending claim in the system and could get the pending fee.

Table 4-5 Revolution of VA and NVA

		Total	VA	NVA1	NVA2
Before implement	Total Minute	2880	1140	1354	386
C	Total Percentage	VERSITY	40%	47%	13%
After implement	Total Minute	1134	867	253	63
	Total Percentage		76%	22%	6%

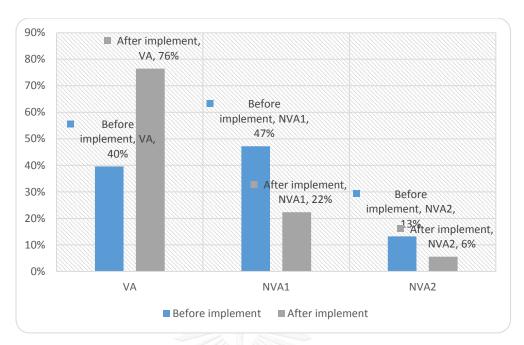


Figure 4-13 Result from implementation

The processing time after the implementation as shown in the Table 4-5 and the figure 4-13, reduced form 2880 minutes to 1134 minute. The percentage of the Value Adding Process increased from 40 % to 76%. On the other hand, the Non Value Adding Process 1 and 2 can be reduced from 47% to 22% and 13% to 6% respectively. The VN NVA analyse table is as shown in Figure 4-14. The VA NVA Analyse shows the working process after implementation and also the implementation method that created to force with the problems.

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	T										
Main Process Name	Activities	Operation	Transport	Delay	Inspection	Storage	Mean (minutes)	VA (minutes)	NVA1 (minutes)	NVA2 (minutes)	Implementation
	New claim arrives by Email	0	<b>/</b> →	D		$\nabla$	1.0	1.0			
	Arrangement with the Insured		1	D		$\nabla$	15.0	15.0			From re-arrangement
	Assign a new claim to an appropriate adjuster	I	1	D		V	15.0	15.0	15.0		Use claim allocation tools
Assignment	Open a new claim in the system		19	D		$\nabla$	8.0		8.0		Information Management
	Create Claim Folder in Share Drive	0	Î	D	-	Ť	5.0		0.0	5.0	Information Management
	Total	$\vdash$	7	D	-		44.0	16.0	23.0	5.0	miormation Management
	Travelling to the site	0 .	<b>*</b>	D		$\nabla$	100.0	100.0	23.0	5.0	
	Site inspection		1	D		$\nabla$	90.0	90.0			
	Fill the Site Inspection Form		1	D		$\nabla$	15.0	15.0			Survey Form
	Travelling to the office	0	<u>}</u>	D		$\nabla$	100.0	100.0			Survey Form
Survey	Scan the Inspection Form		1	D		$\nabla$	5.0	100.0		5.0	Eliminate First Advice
		_				$\nabla$	5.0	5.0		3.0	Emiliate First Advice
	Sent to the Insurer Save in share drive	0	1	B D	-	<b>*</b>	2.0	5.0		2.0	Information Management
	Total		7			7	317.0	310.0	0.0	7.0	
				D		$\nabla$	180.0	180.0	0.0	7.0	317.0
	Making Report no.1	0		D		$\nabla$	-	180.0		5.0	Report Format
	Send Email to Checker			_		$\nabla$	5.0		60.0	5.0	
Report no.1	Checking Report by Checker	0	1		<b>▼</b>	$\nabla$	60.0		60.0		
	Sending the report to Insurer	0	1	9		<u>∨</u>	5.0	5.0		• •	***
	Save in share drive	0	⇧	D		<b>&gt;</b> ₹	2.0	4050		2.0	Information Management
	Total		1	5	1		252.0	185.0	60.0	7.0	252.0
	Making Deny Letter	•<		D		$\nabla$	30.0				
	Send Email to Checker	0	*	P.		$\nabla$	5.0			5.0	
Deny Letter	Checking Report by Checker	0	↔	D	<b>—</b>	$\nabla$	30.0		30.0		
	Sending the report to Insurer	0	*	2		$\nabla$	5.0	5.0			
	Save in share drive	0	↔	D		<b>X</b>	2.0			2.0	Information Management
	Total	11				100	42.0	5.0	30.0	7.0	42.0
	Make a request document letter	)<	Û	D		$\nabla$	30.0	30.0			Use format
Request document	Send the letter to the Insured	0	*	P		$\nabla$	5.0	5.00			
	Save in share drive	0	⇧	D		$\nearrow$	2.0			2.0	Information Management
	Total	1/ 1/2			9	191	37.0	35.0	0.0	2.0	37.0
	Receive document by Email	0	-	2		$\nabla$	1.0	1.00			
	Save in share drive	0	₽	D		>▼	5.0			5.00	Use format and data base
	Making a proposal letter			D		$\nabla$	240.0	240.0			Use format and data base
Proposal	Send Email to Checker	0	*	Q.		$\nabla$	5.0			5.0	
.,	Checking by Checker	0	$\Rightarrow$	D)	>	$\nabla$	60.0		60.0		
	Send to the proposal letter to the Insurer by Email	0	<b>*</b>			$\nabla$	5.0	5.0			
	Save in share drive	0	⇧	D		>▼	2.0			2.0	Information Management
	Total						318.0	246.0	60.0	12.0	318.0
	Received Confirmation Email from the Insurer	0	-	2		$\nabla$	5.0	5.0			
	Save to Email in Share Drive	0	⇧	D		>▼	2.0			2.0	Information Management
	Making a FOA and Conclusion Table		P	D	d /11	$\nabla$	30.0	30.0			Rearrange and Combine
	Send the FOA to the Insured by Email	0	>→	D		$\nabla$	5.0	5.0			Rearrange and Combine
	Making a Final Report	•	⇧	D		$\nabla$	30.0	30.0			Rearrange and Combine
FOA and Final	Create invoice	-	û,	D		$\nabla$	10.0		10.0		
Report	Send Email to Checker	0	*	9		$\nabla$	5.0			5.0	
	Checking by Checker	0	⇧		<b>7</b>	$\nabla$	15.0		15.0		
	Send the Final Report and Invoice to Insured	0	<b>*</b>	d		$\nabla$	5.0	5.0			
	Save in share drive	0	û	D		1	2.0			2.0	Information Management
	Close claim in the system	•	b	D		$\nabla$	15.0		85.0	21.0	· · · · · · · · · · · · · · · · · · ·
	Total						124.0	75.0	110.0	30.0	
	Total										
Total (minutes)							1,134.0	867.0	253.0	63.0	
Percent of Total								76%	22%	6%	

Figure 4-14VA and NVA Analysis after implementation

### 4.5 Efficiency Measurement

In order to measure the successful of the implement, referring to the objective of this thesis, all improvement method created to reduce the outstanding claim per person. There are assumption that there had problem occurred in the claim operation made the claim process could not flow then the claim could not be closed. Team had found out the root cause of problem and created the implementation to force with.

Therefore, the way to measure that the improvement could flow the claim process and reduce the number of outstanding claim is to consider the number of claim and the operation cycle time. Moreover, in the improvement process, the number of process, also the processing time after implement and also the percentage of Value Adding and Non-Value Adding Process to the Customer.

### 4.5.1 Number of outstanding claim and claim per person

The improved implementations are directly handled with the long pending of the outstanding claim by creating the Monitoring team and the Criteria to response each root cause of problems analyses. Monitoring team forced with the long pending claim by reviewing all outstanding claims and suggested the criteria to the adjuster case by case in order to shorten the claim duration. The created criteria which were issued 28 days letter to close long pending claim.

### 4.5.2 Total Lead Time and Operation Cycle Time

To reduce the operation cycle time, the implementation which were forcing the adjuster to follow up the Insured or even the Insurer to accelerate their internal process that could reduce waiting time which was not occurred from the ABC Company.

### **4.6 Result from Implementation**

### 4.6.1 Number of outstanding claim and claim per person

The number of claim close after implementation launched. The Monitoring team has reviewed and found that there were many claims could be closed. For example, the claim that waits for the claim document could not contact the Insured. Following the criteria to manage this type of claim, the adjuster sends the 28 days letter to the Insured and suggested to the Insured. After 4 weeks, if the Insured does not reply, then the adjuster can close the claim. This made the adjuster knew the problems and fixed them directly. One the bottom neck of each claim process was cleared and expanded, then the claim process could flow.

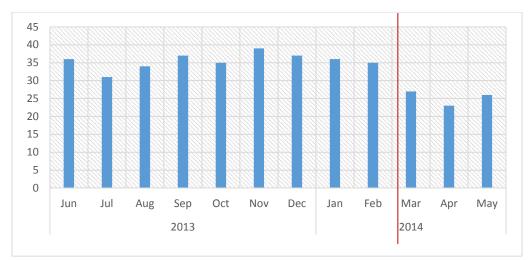


Figure 4-15 Average outstanding claim per person after improvement

The result from implementation as shown in the Figure 4-15, the outstanding claim of the team is decreased from 457 claims (both 2 categories) to 361 claims in 3 months from March 2014 to May 2014. The Number of outstanding claim was reduced and the average claim per person was decreased from 38 to 30 claims.

### 4.6.2 Total Lead Time and Operation Cycle Time

Team collected the data of closed claim after launched all implement and found that the Total Lead Time is reduced. For the policy coverage case is reduced from 50.3 days to 18.1 days and for no policy coverage from 34.80 days to 10.4 days, the details are as shown in the Table 4-6.

### 4.6.3Claim Distribution

After the manager who assigns the claim use the Claim Allocation Framework, the new claims were allocated to the adjuster appropriately and distributable.

Table 4-6 Conclusion table of Total Lead Time and Processing Time

			Before	After	Result
Coverage	Total lead time	Days	50.3	18.1	64%
Coverage	Processing time	Days	5.3	2.3	57%
Not Coverage	Total lead time	Days	34.8	10.4	70%
Not Coverage	Processing time	Days	4.3	1.6	62%

## **Chapter 5** Conclusion and Further Recommendations

### 5.1 Conclusion

Company ABC is a small-middle company which had been expanded from 30 staff to over 80 staff in the recent year due to large catastrophic losses in 2011. The company has successful in the company marketing position that could make the large profit to the company. After the large loss passed, the customer also concerned more professional service from the company both of accurate and on time delivery. The company tried to issue maintaining the usual high standard of claim management service to the clients as there is a delay across the board, which there was resulted in over 2,500 claim assignments which there are a high proportion still outstanding after almost one year. Poor service from delays reflect and impact severely on service standards, which has an adverse effect on future business, hence identifying and implementing solutions to reduce the delays which ultimately restores the service level is required.

### 5.1.1 Problem Analysis

From the problem occurred form the delay, is started to discover the cause of delay from the internal process. The results are not expected to fix the problem form the large amount of claim in the 2011 year and also improve the company service to response the customer expectation in the normal situation. This thesis started to ensure which process being the cause of bottom neck and make the claim process delay by utilised various technique and tools to find and fix the problem.

First of all, the general in formation of the company environment has been studied and represented in the chapter 3. The scope of study was limited at the CAR Team issued from the type of policy that team handles, Contractor All Risk Policy which related to the Insurance of Construction site. Team concluded 12 Adjusters and 2 Technician Assistants. The environment of the company has been study to review the existing problem. Team uses the Value stream mapping to verify the overall of the claim process and lead time. Then the VA NVA Analysis use to verify the subprocess of the company. Form VA NVA analysis, Team found the Value Adding Process comparing with Non Value Adding Process and wastes occurred in the environment. Team had established the discussion and used the Fish Bones Diagram for analysis the cause of delay in the operation on the assumption that if the claim get stuck in which the process, meant that there were problem occurred.

### 5.1.2 Implementation Programs

Team used the ECRS as a tool for improvement the process. Team created the improvement ideas to force with the problem and could separate in to 8 aspects. The processes had been eliminated, combined, rearranged and simplified.

Team started with rearranges the process such as the Assignment Process, Survey and First Advice, checking process and also the Form of Acceptance and Final Report.

Team created the Resource Allocation Framework, used for contribution the staff capability with the claim amount and complicity. Moreover, the new claim is assigned by considering the available time of the adjuster.

Team used the theory of Information Management to create the Sharing Centre as the place that the staffs share all information about the claims that the information could be verified by everyone. The information of claim is organised and easy access.

The Report and Letter Template are also created to simplify the process and make life easier for the adjuster and the checker.

The Monitoring Team also established to force with the specific problem cause of long claim pending.

Moreover, team also consider fixing the process by using Lean and Reengineering to change the working process from push to pull and delete the inventory during the process.

### 5.1.3 Implementation and evaluation

All implementations are launched to CAR Team by the January 2014. On the study period, Team had created the training for the CAR Policy.

The monitoring team review all long open claims and found that there were many claims could be forced close especially the claims were waiting for the document from the Insured and waiting period was over 1 years. The monitoring team gave the criteria to the adjuster to send the 28 days letter. There were many replies that the Insured did not want to claim anymore, or even did not reply, and then the adjuster could close the claim. There are over 75 claims that could be closed by this criterion. Therefore the number of outstanding claim was rapidly reduced in the first 3 months. Moreover, the number of claim that lack of company standard is also reduced after the implementation is started.

For Claim Allocation Framework, the manager of CAR team tested by using the framework before assigns the new claim to the adjuster. The claim has distributed to all adjuster. The result of the appropriate assign the claim could be shown in the survey time and the Report no. 1 issued both of 2 claim categories were reduced.

Team has continued implementing the implement regulation as the results from the testing period were acceptable.

### 5.2 Problem and Suggestion for further study

From implementation plan, Team required lots of time to meeting and conclude the implementation plan to the staff for example, using format of claim assignment, survey, report and letter.

At the result, Team could reach to the objective of study to reduce the outstanding claim. The researcher found the root cause of obstruction at the waiting the client return the documents, claim document and Form of Acceptant. Team created the criteria to force with the problem by create the expedited letter or 28 days letter. Then the company could close the long-time pending claim and the outstanding claim significant reduced. However, some of the claim could not close from many reasons, for example, the Insurance Company did not approve to close the claim, and so the company had to leave the claim open until the prescription had been left for 2 years.

For the next study, from discussion with the team, in the claim adjustment method can be sued more innovation to help the adjuster to calculate the adjustment amount. Creating Math Model may be using long time for develop because of high complexity and conflict. It will use mathematic and finding relationship of related factors for finding Math Model. Users only put some information and quantity; the claim adjustment amount will be an output from operating the application. Then Team may be developing software to launch the program in the computer further.

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### REFERENCES

Barkley, B. T. and J. H. Saylor (1994). <u>Customer-driven project</u> <u>management: A new paradigm in total quality implementation</u>, McGraw-Hill.

Devid Thomson, et al. (2006). "Loss Adjusting Practice."

Earl, M. J. (2000). "Every business is an information business." Marchand, DA; Davenport, TH: Mastering Information Management. London et al: 16-22.

Fryman, M. (2001). "Quality and Process Improvement".

Joiner Associates Staff, et al. (1995). "Pareto Charts: Plain & Simple ".

Keyte, B. and D. Locher (2004). <u>The complete lean enterprise: value stream mapping for administrative and office processes</u>, SteinerBooks.

Kotler, P. and G. Armstrong (2006). "Principles of marketing-11/E."

Obara, S. and D. Wilburn (2012). <u>Toyota by Toyota: Reflections from the Inside Leaders on the Techniques that Revolutionized the Industry</u>, CRC Press.

Pathak, J., et al. (2005). "A fuzzy-based algorithm for auditors to detect elements of fraud in settled insurance claims." <u>Managerial Auditing</u> <u>Journal</u> **20**(6): 632-644.

Rice, F. H. (1991). <u>Marketing strategies for the growing business</u>, US Small Business Administration.

Sarkar, D. (2006). "5S for Service Organizations and Offices: A Lean Look at Improvements".

Silvestro, R., et al. (1992). "Towards a classification of service processes." <u>International Journal of Service Industry Management</u> **3**(3): 62-75.

Slack, N., et al. (2010). Operations management, Pearson Education.

The Chartered Insurance Institute (2014). "About the Chartered Insurance Institute." from <a href="http://www.cii.co.uk/about/about-the-cii/the-chartered-insurance-institute/">http://www.cii.co.uk/about/about-the-cii/the-chartered-insurance-institute/</a>.

VorneIndustry (2009). "Takt Time."

Wells Media Group, I. (2014). "Lloyd's Analyzes Repercussions of Thai Flood Losses a Year Later." <u>Insurance Journal</u>.



## APPENDIX



จุฬาลงกรณ์มหาวิทยาลัย Chui ai nagkarn University

### **Appendix 1. Report No. 1 or Final Report – Template**

### Date

(Name of the Insurer)
(Insurance Company)

Your Ref
: Please Confirm
Cour Ref
: 2014xxxx
Adjuster
: Name

Adjuster : Name
Broker : Name/--

### REPORT NO.1 / FINAL

POLICY NUMBER : XXXX

NAME OF INSURED : Name as Principal and/or Name as main

contractor and/or other sub-contractors

concerning to this project

INSURED'S CONTACT : Name

PERSON Tel.

PRINCIPAL : Name

PROJECT : Name

LOCATION OF CONTRACT : Address

DESCRIPTION OF WORKS : Construction of xx storey –

Factory/Condominium / Residence

CONTRACT PERIOD : From Date to Date

CONTRACT VALUE : Baht

LOCATION OF LOSS : Address

DATE OF LOSS : At approximately time

Date

DATE OF INSTRUCTION : Date

DATE OF INSPECTION : Date

CAUSE : Cause of loss from site inspection

EXTENT OF LOSS : Detail of loss

RESERVE : Baht xxxx

### **INTRODUCTION**

We refer to Insurers' instructions of **Date** and confirm we made immediate contact with the Insured and attended site on the same date as per the Insured's request.

We have now completed our initial investigations and submit our report for your consideration.

### PARTIES TO CONTRACT

Principal : Name

Main Contractor of : Name

Structure work

Main Contractor of : Name

System work

Main Contractor of : Name

Interior work

Consultant : Name

### **CONTRACT WORKS**

The Contract Works relate to the construction work of xx-storey factory/condominium/residence located at Address.

This contract works include structural work, architectural work and sanitary work of this project only.

### **CONTRACT FORM**

Contract value : Baht xxxx

Contract period : From Date to Date

Percentage completed : xxxx %

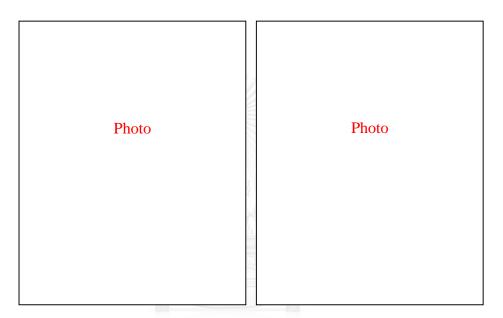
at the time of our site visit

### **CIRCUMSTANCES**

We attended at site where we met and discussed the circumstances of the damage with Name, Position e.g. Project Engineer/ Safety Officer/ Administration of Company Name.

At approximately Time hours on Date, Name informed that ... (Circumstances of loss)

### **View of the Incident Date**



### **INVESTIGATION**

The Insured advised us that (The cause of loss and how it occurred).

# Photo

View of (related of the investigation)

### NATURE AND EXTENT OF DAMAGE

From our site visit, we jointly inspected the damage with the Insured's staff where we found that the (details of the damage property or injury).

View of damaged property

## Photo

We have requested the Insured send us full details of their claim with supporting documents to repair/replace the damage.

We shall report further on the scope and cost of replacement in our next report.

### **POLICY COVERAGE**

We note from your Contractor All Risks Policy no. xxxx that you provide coverage as follows:

Insured : Name as Principal and/or Name as main contractor and/or other

sub-contractors concerning to this project

Period : From Date to Date

Sum Insured:

Description	Sum Insured (Baht)
Section I	
- Contract work (Permanent and temporary	XXXX
works including all materials to be incorporated	
therein)	
- Construction Equipment	Not covered
- Construction machinery and stationary plant	Not covered
- Clearance of debris (Limit of indemnity)	XXXX
- Architects' Surveyors' and consulting	XXXX
engineers' fees necessarily incurred by the	
Insured with the consent of the Insurers in the	
reinstatement or replacement of the property	
insured by Items 1, 2 or 3 destroyed or damage	
by any of the perils hereby insured agent	
- Existing property (including Sales office)	XXXX
Total	XXXX
Section III	
- Third Party Liability	Combined Single Limit
	Baht xxxx

Deductibles: Contract work

Baht xxxx Subsidence, landslide, collapse, any water

damage, maintenance

Baht xxxx Testing and Commissioning

Baht xxxx Any other cause

Baht xxxx Existing Property

### Baht xxxx Third Party Liability

Special Clause:

If the special clause related to the loss

### **BENEFICIARY** (If have)

Loss of or damage to the contract work insured under this policy, if any, shall be payable to Name as their interest may appear.

### **CONTRACTUAL LIABILITY**

The Insured are contractually liable for the damage to the insured property.

### **POLICY LIABILITY**

- On checking, we noted that the damaged property was a part of the contract work and the cause was not excluded by the policy.

We therefore satisfied there is a valid claim to consider under the terms of this policy.

- We await a copy of the entire policy with all the terms and conditions, including exclusions, where we will comment on this aspect in our next report.
- Therefore, it would be difficult for the Insured to avoid legal liability for this incident therefore the damaged ceilings, walls and furniture of Third Parties would fall within Public Liability section. (For Third Party)
- From checking the policy, we found that the policy does not extend to cover the damage to Third Party's property during the maintenance period. Therefore, the loss would not fall within the policy coverage.

### **OTHER INSURANCES**

We were advised that there are no other insurance policies which can be called upon to contribute towards this loss.

### RECOVERY

- A recovery may be possible against Name who provided the security guards services. A letter to the Security Guard Company holding them responsible for the loss was issued and we have requested a copy of that letter.

We leave this for Insurers' consideration and any action which you deem appropriate.

- A recovery may be able to possible against the owner of the crane truck with plate no. 71-4190 Songkhla who proved to be the crane truck service to the Insured. Our investigations are continuing and we will advise further in due course.
- We do not believe there is any potential for a recovery action in this case.

### **SALVAGE**

- We are under investing about the salvage, where we will comment on this aspect in our next report.
- The salvage in this loss had no commercial value.
- From our site inspection, we found that damaged items of the Insured had some commercial value, where we negotiated the salvage value of 30% of the claim with the Insured, and deducted this from our adjustment.
- For salvage, we noted that Insurers could dispose of the salvage for the sum of Baht xxxx, which was paid directly to the Insured.

### RESERVE

Based upon the information available at this early stage, we would suggest Insurers set up a reserve of Baht xxxx.

### **REMARKS**

- We therefore submit the above for Insurers consideration and our further report will follow in due course.
- We therefore submit the above for your consideration and our further report will follow in due course. In the meantime, we would appreciate you forward a full copy of the policy wording.

### **Appendix 2. Proposal Letter – Template**

### Date

(Name of the Insurer) Your Ref: Please Confirm (Insurance Company) Our Ref: 2014xxxx

(Insurance Company) Our Ref : 2014xxxx Adjuster : Name

Broker : Name/--

Dear Sirs,

Re: Insured: Name

Policy No. : xxxx Date of loss : Date

We refer to the above. We have now completed our investigations and propose our adjustment of the loss for your consideration.

### **DEVELOPMENTS**

We refer to our previous report in which we detailed the various aspects related to this loss and will not repeat the details contained therein but merely refer Insurers to the report for any further information required.

We have maintained close contact with the Insured and worked with their staff at the risk location in order to determine the full nature and extent of the loss. We have discussed the various aspects with the Insured, advised relevant claims procedures and requested various documents/information in relation to the loss.

We have completed our investigations and submit our proposed adjustment for your consideration.

### CLAIM AND PROPOSED ADJUSTMENT

The Insured submitted a claim in the sum of Baht xxxx. Details of the various items making up the claim are shown in the schedule of loss assessment, which is attached as **Appendix I** to this report.

The claim is summarised as follows:

Item	Description	Claim (Baht)	Adjustment (Baht)
A	Topic		
A1			
A2			
	Total Item A		

Item	Description	Claim (Baht)	Adjustment (Baht)
В	Topic		
B1			
B2			
	Total Item B		
	Sub Total		
	Less: Deductible		
	Grand Total		

We carried out various damage inspections together with the Insured and their contractors. During these meetings we discussed and agreed the scope of all reinstatement works. We also discussed and agreed the basis of pricing the necessary works.

From consideration of the claim submitted, we found that the majority of the scope of works claimed was what had been agreed with the contractors and that the unit prices were based on what had been discussed. Therefore, we accept that the majority of the claim items were correctly presented.

We comment under relevant headings as follows:

### **Item A-Topic**

We note that the Insured submitted a claim of Baht xxxx for the .... which included

....

### Cost (following is the sample sentence)

- For the items mentioned above the costs were justifiably incurred and the unit costs were similar to current local market prices. However, some of the claim documents were duplicated; therefore, we deleted these items from the adjustment.
- We carefully checked the overtime worksheets and were not satisfied that the costs related to the damage. Therefore, we deleted these items from adjustment consideration.
- From our checking, the quantity of damaged property was correct and the claim cost was based on the original BOQ. Therefore, checking the alignment of the damaged property was accepted without adjustment.

### Quantity

- Upon receipt of the claim details and invoice, we carefully checked the quantities claimed against those we inspected and recorded during our site inspection. As a result, we accepted that the scope of works and the quantities claimed were correct.

- At our site inspection, we co-inspected the loss quantities with the Insured's staff. We found that these items were overstated. We adjusted the quantity of these items to the quantity which we had noted during our site inspection.
- We calculated the salvage from the data recorded from our site inspection. We found that the weight of the salvage, electrical cable was approximately 172.86 Kilogram. We used market price Baht 150 per kilogram. Therefore we deducted the salvage amount of Baht 25,929.00 from our adjustment.

### **VAT**

- The Insured could reclaim VAT and this was deleted from our adjustment.
- The Insured could not reclaim VAT, we therefore allowed VAT.

### **Deductible and Conclusion**

- The policy has a deductible of Baht 40,000.00 each and every loss. We calculated the total weight of the missing cables at 900 kilograms. We believe that the thief/thieves stole 300 kilograms at a time on three separate occasions. We therefore applied the deductible at Baht 120,000.00 (Baht 40,000.00 x 3 times).
- Applying the policy deductible of Baht xxxxin respect of each and every loss, the loss was adjusted at Baht xxxx.

We submit the forgoing for your consideration and await your instructions before proceeding.

Yours faithfully,

(Name)

-END-

### Appendix 3. 28 Days Letter

"28 Days Letter"

Date

Dear Sirs.

RE: Insured : Xxx

Our Ref : Xxx
Policy Number : Xxx
Date of Loss : Xxx

We note that despite having formally written to you requesting further documentation/information, and having issued numerous reminders, we regret that to-date we cannot trace any reply from you.

Hence, this may have been an oversight on your part, although we are unable to leave our file open in abeyance indefinitely, and we respectfully request that the necessary documentation/information is submitted for our review within the next 28 days.

We trust that if you are seriously intending to pursue this claim that you submit the relevant documentation/information within the timeframe stipulated above and if we fail to receive the relevant documentation/information within the timeframe stipulated above, we shall assume that you no longer wish to pursue this claim and advise Insurers to close their file accordingly.

The Adjuster handling your loss is Khun XXXXX on Extension xxx or their Mobile is 08X XXX XXXX and Email is Xxxxxx@ABC.co.th.

Yours faithfully,

Adjuster Name

## **Appendix 4. Daily Diary Schedule**

				tion						
				Location						
				Contact number						
	*S = Survey	$^*M = Meeting$		Contact		_				
	Collection	tion Leave	Leave	Client's Name						
	* C = Info Collection	* VL = Vacation Leave	$^*$ SL = Sick Leave	Purpose						
=				ABC ref. Purpose						
DAILY DIARY SCHEDULE				Time						
DAILY DIA				( / / )	(Staff Name)					

THEW Claim	m Assignment Form
Insurer information	
Insurer/ Instructor:	
Type:	
Policy no.:	
Insured's Name:	
Contact Person:	
Date of Loss:	M1/122
Location of Loss:	
Nature of Damage:	
Initial Loss (Baht):	
Broker/Tel:	
Comment:	
Insured's information	
Brief Circumstances:	
	ณ์มหาวิทยาลัย
OHOLALONO	KOIII GIRITEIIOII I
_	
Item Damage	
Estimated Loss (Baht)	
Appointment (Date/Time):	
Complexity	
Amount of Loss	
Assignment Distribution to:	
Date of Assignment/ Time:	
Claim no.	

## **Appendix 6. Survey Form**

Su	rvey Form
	Company Reference: 2014xxxx
Claim information	
Insurance Company	
Policy Number	
Name of Insured	
Principal	
Project	× 541 1 2 2
Description of Work	WHI///2
Location of Contract	
Location of Loss	
Date of Loss	
Date of Instruction	
Date of Survey	
Statement	
Insured Contact Person	
Position	
Company	
Circumtance:	
จุฬาลงเ	รณ์มหาวิทยาลัย
Chulalor	GKORN UNIVERSITY
Extent of Loss	

### **VITA**

Miss LucksanaraKhoohawatthana was born on 29th October 1987 in Bangkok. In 2010, she graduated her first degree in Bachelor of Civil Engineer at Chulalongkorn University, Bangkok, Thailand. She continues her further study in Master Degree of Engineering Business Management at Regional Centre for Manufacturing System Engineering (RCMSE) Chulalongkorn University Thailand and University of Warwick, United Kingdom.

