

THE STUDY ON FACTORS INFLUENCING THE INCIDENCE OF
IMPROVISATION AMONG POLICE IN SIBU, SARAWAK

BY

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ABSTRACT

The purpose of this research is to study viewpoints regarding factors that influence incidents of improvisation among Police in Sibul, Sarawak, especially with occurrences at workplaces and during their duties. This study is undertaken to identify the basic demographic and nature or characteristics in themselves (police in Sibul, Sarawak) such as skills, knowledge, time duration, and jobs descriptive which became variables or starting point in the improvised stage. The primary data collected through questionnaires were distributed to 250 police in Sibul, Sarawak and only 217 respondents returned back for next analysis phase. The system that researcher used to analyze data from respondents is "Statistical Package for the Social Sciences" or (SPSS) and the test that's been running for measuring the results in this research study were description analysis, descriptive, and regression were used to explain the background, factors and to test the hypothesis.

This study shows that the majority of police in Sibul, Sarawak involved in incidents of improvisations during duties. The researcher intend to find the major factors that influence them fall into improvises actions during work. Referring to previous researchers in various fields such as management, finance, services and technological expertise, an improvisation gives vital impact in its operations, especially in decision making and reactions areas. To understand the factors that spur in improviser self, a descriptive and regression analysis as performed and found the skills that is the most important to influence in improvisation. Others variable that considered as important role in improvising actions are jobs descriptions, times and knowledge. In general, the results of this study would help to gain more understanding on the background and responding efficiently among those police who are involved in improvisation during the works. Finally, this study also gives a useful tool to all organizations which serves to publics under Ministry of Defense, service industry, business associations, researchers and policy makers to 'harvest' improvisation in decision making and any urgency activities in Malaysia.

Keywords: factors, improvisation, police

ABSTRAK

Tujuan kajian ini adalah untuk mengkaji tentang faktor-faktor yang mempengaruhi improvisasi di kalangan polis-polis di Sibul, Sarawak, terutamanya kejadian improvisasi yang berlaku ketika mereka bertugas. Di samping itu, kajian ini juga mengenalpasti maklumat demografi dan sifat atau karakter pada diri mereka seperti kemahiran, pengetahuan, tempoh masa dan corak kerja yang menjadi momentum atau titik penemuan bagi proses improvisasi. Data primer dikutip melalui soal selidik yang disebarkan sebanyak 250 set kepada polis di Sibul, Sarawak, namun Cuma 217 responden yang mengembalikan soal selidik untuk fasa analisis yang selanjutnya. Sistem yang digunakan oleh penulis bagi menganalisis data dari responden adalah pakej "Statistical Package for the Social Sciences" (SPSS) dan kajian yang dijalankan ialah analisis penghuraian, deskriptif, dan regresi telah digunakan dalam menerangkan latarbelakang, factor-faktor dan pengujian hipotesis.

Hasil kajian menunjukkan ramai anggota dan pegawai polis di Sibul, Sarawak terlibat dalam improvisasi ketika menjalankan tugas. Penulis mahu mencari faktor utama yang mempengaruhi mereka bertindak kearah tindakan improvisasi ketika bertugas. Merujuk pada pengkaji-pengkaji terdahulu di dalam pelbagai bidang seperti pengurusan, kewangan, perkhidmatan, dan kepakaran teknologi menyatakan improvisasi memberi impak yang penting terutama di dalam ruangan membuat keputusan dan member reaksi., Analisis menunjukkan kemahiran adalah aspek terpenting dalam memahami faktor yang merangsang pembentukan improvisasi. Antara pemboleh-ubah lain yang dipertimbangkan dalam mempengaruhi improvisasi adalah pengetahuan, tempoh masa, dan juga diskriptif kerja. Secara umum, kajian ini dapat membantu untuk lebih memahami tentang latar belakang dan kecekapan tindak balas di kalangan anggota dan pegawai polis yang terlibat dalam improvisasi ketika bertugas. Akhir sekali, kajian ini dapat memberi panduan kepada organisasi-organisasi yang berkhidmat untuk masyarakat di bawah Kementerian Pertahanan, industri servis atau perkhidmatan, persatuan usahawan, penyelidik dan pembuat dasar di Malaysia bagi menyemai improvisasi didalam aktiviti yang memerlukan keputusan dibuat dengan segera.

Kata Penting: faktor-faktor, improvisasi, anggota dan pegawai polis.

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CHAPTER 1

INTRODUCTION

The beginning of this thesis focuses on the background of the research study, problem statement, research question, research objectives, significance and limitation of the study, the operational definition of the main terms used in this research and lastly the organization of the thesis.

1.1 Background of the Study

According to BBC News website, Malaysia has been shocked with a few tragedies recently which were the missing plane of MH370, (BBC News, 2014) and border invasion by Sultan Sulu's military in Lahad Datu, Sabah (Utusan Malaysia, 2013). Both cases have relate with parties involved in making immediate decisions such as organizations under the Ministry of Defense. An improvisation is one of the critical elements to develop immediate or urgency decision during unexpected situations. Thus the researcher suggests that improvisation is a vital issue in every organization to be discussed.

Based on Crime Index by the Royal Malaysian Police, the overall crime index rate increased from 2006 to 2007 which indicates rising numbers 746 to 767 crimes per 100,000 people, an increment of nearly 3%. In comparison, the crime rate is decreasing in these recent years (2012-2013). The statistics of the whole crime index in Malaysia are reduced by 4.3% or from 153,669 in 2012 to 147,062 in 2013, (Official Portal of Royal Malaysia Police, 2014). This shows that Royal Malaysia Police has succeeded in their

missions in reducing the crime rates. However, the chances to bring the numbers of crime rate decrease can be made especially for violent crimes and rapes, which the numbers increasing every year.

Sibu located in Sarawak is a district with a demographic composition of 60% Chinese, 25% Dayaks and 15% Malay-Melanau. This district consists of 4 police stations located in Sibu Jaya, Sg. Merah, Lanang and Sibu central city and 1 district police headquarters (IPD) in Sibu town. The latest crime Index reported by PDRM shows that Sibu is the second highest after Kuching in the rising numbers of crime index. Therefore, the researcher was chosen Sibu district to conduct a survey regarding improvisation among police since the researcher has thought the numbers of crime rates has a relationship with the response speed given by police to public. The district of Sibu involves in high numbers from the total of 9,191 cases in Sarawak, Royal Malaysia Police Statistic of Crime Index (2014). The index for property crime rates for Sibu, Sarawak increased from 791 to 817 reported between 2012 to 2013, increased almost 26%. Cyber gambling crime rates also increasing from 5-10%. The incidence of index violence crimes remains declined in 2013 by 28% (IPD Sibu crime statistics, 2013). In order to look closely on the role of police in overcoming this issue, the researcher decides to examine improvisation occurrences of police duties due to determine immediate response to the public which would drive an implication on crime rates. The duties and responsibilities of Royal Malaysia Police can be referred to Appendix B.1.

Referring to British Association of Chief Police Officers (ACPO) handbook, Police officers have their own roles when facing issues or problems during an incident, which they have to consider any immediate support or action to deal with more efficient and effective way (ACPO, 2007).

As part of the security force structure in Malaysia, Royal Malaysian Police (Polis Diraja Malaysia) has carried out their responsibility to sustain Malaysia's condition as a peaceful country. Thus, the speed of movement and enhancement of creativity in problem solving for every individual of the Police Force is crucial. 'Improving response time is one of the steps to increase the people's perception towards the police service' stated Datuk Ayub Yaakob, the chairman of the NKRA PDRM Secretariat in Utusan Malaysia Press dated 26th March, 2013.

The improvisation is defined in various ways by many practitioners and academicians. In the organizational learning area, improvisation means intuition guiding action in a spontaneous way as stated by Crossan and Sorrenti, (1997) and it is parallel with police job routines which not only act under leader's orders but also requires themselves to spontaneously act under certain circumstances such urgency moment in various cases. This being supported by management guidelines in British Association of Chief Police Officers (ACPO) handbook cited that, police act as planners, advisors, and commanders who prepare for and manage incidents and events which absolutely will put them under the risk of unforeseen situation. Therefore, their spontaneous and pre-plan actions are important in solving any problems occur during unexpected situation.

The role of police force became more critical in Malaysia, especially when the numbers of criminal cases was increasing recently, such as robbery and murder. This situation has driven our country bear loss in huge amount every year. However, the success of Royal Malaysia Police cannot be denied when the crime rate increased by 33 percent for the period of five years as prior stated by the Prime Minister of Malaysia Najib Tun Abdul Razak. Therefore, the police need to be more efficient in solving the cases which then lead them to improvise in every task and be more skillful person when meet with urgency moment. The rules of improvisation will helps doctor, policeman, fireman and others occupation that relates to urgency moment to develop the spontaneous, coordinating skills and self-expressions with the sense of what is emerging in other's people lives and in the field they co-create and co-inhibit as stated by Preston (2001). Therefore, every skillful police will enhance the quality of jobs and increase their performance to get rid of criminal cases.

The government had taken a step in recruiting more police force every year in an effort to reduce the crime rate numbers. However, in extending the Royal Malaysia Police workforce, to study on the factors that lead to improvisation among police is critical. There might be occurrences of spontaneous and convergence of plan and execution in every task of police. The convergence of spontaneity and creativity that police practices from their activities could increase the quality of the job. Any person with credibility on speed of skills, spontaneous and knowledge will enhance their job to be the best possible in achieving objectives (Martins, 2007).

The British Association of Chief Police Officers (ACPO) handbook determines practical relevance, such improvisation as one of the reasonable technique that could be

used by Police Force for increasing their efficiency in workload (ACPO, 2007). According to Mendonca (2007) the profession which involved in unforeseen and emergency situation like police normally applied and improvise action as an alternative in solving the problem due to lack of time resources. Some of the jobs require the person in the position to act improvising due to their responsibility that enshrined in the job description. The professions as services provider such as cabin crew and police have similarity in the possibility of unforeseen situations (Daly, Grove, and Dorsch, and Fisk, 2007). Therefore, it is crucial for researcher to find the most relevant factors that lead to the incidence of improvisation in police's task.

In the police workload, the agility and improvisation among police are necessities to help government achieve its second mission in NKRA which is to decrease the numbers of crimes. Therefore, it is important to analyze the factors of improvisation among police as it will help to reduce the length time of process (little or no gap between plan and execute) and this will help Royal Malaysia Police to meet their objectives and every mission that they commit. According to Spelman, William and Brown (1982), the results of study cases done by The Police Executive Research Forum in United State found that, the quick response which drives from improvisation act by the police onto serious events such as apprehending criminals will help to decrease the fear level amongst the community. This is because the immediate response by police will increase the community trust on the efficiency of police in giving respond to the public.

Currently, fear of crimes has given huge impacts on Malaysian society. Individuals choose to live, shop and socialize at the place when they feel safe there. However, the fear of crime has increased among society nowadays. The government

needs to ensure the safest and peaceful country to live in because people's fear could drive negative ramifications for social life, economic and politics. Literally, this responsibility falls under police task in reducing fear of crime among society. Referring to Cordner (2010) in his study on 'Reducing Fear of Crime', he found that in professional policing: rapid and quick response by police patrol will reduce the fear of crime among society. Thus, the study shows that quick response as spontaneous action on police task is part of the element of improvisation, which is believed, can indirectly reduce fear of crime among society. Cordner (2010) also pointed out that, slow police response in the time gap between pre-plan and action, especially for emergency responses might cause more fear among society. Therefore, if they do not respond quickly to serious incidents due to lack of improvisation in them, then the public's fear of crime may increase.

Improvisation is derived from Latin, a word which is *improvise*, which mean as not seen ahead of time (Barrett, 1998). According to Moorman and Miner (1998), improvisation basically defined as planning and implementing any action simultaneously. The previous practitioners and researchers have determined there is an opportune relative theory between improvisation and teamwork. Referring to these previous researchers, [(Eisenhardt and Tabrizi, (1995), Moorman and Miner, (1998)], improvisation is about how the team does the action learning, experimenting and operating under turbulent environments. As most people know, teamwork is part of the job scope involved in professional policing programs. Thus, this study is important to determine any factors that lead police towards improvisation when work with their teammates.

An incidence of improvisation can be viewed as the substitute or alternative action taken in solving unforeseen problem. The previous researcher Weick (1993) has

explained deeply about improvisational and other actions of individual firefighter who has been in disastrous firetrap. In the case study of Mann Gulch forest fire, Weick has concluded that the response under such critical events has forced the group of firefighter to use the conception of the emergency to fit one they know how to address—rather than to the one they need to address. This same goes with the PDRM teamwork concept, whereby for solving the problem under emergency situation will drive the team to improvise by form the basis of a new course of action. The substitution alternatives which match with the current situation will support the construction of new procedures. According to Rashbaum (2001), the realization of actions might be a set of modified standard that follow operating procedure that gives responds under emergency situations. He gave an example of the police officers who used alternative methods of communication during the response to the 2001 World Trade Center attack.

The prior research shows that factors influencing the incidence of improvisation are because the flexibility in solving the problems and has loose formal and rigid procedure. (Cooper and Kleinschmidt, 1986). The organization might encourage spontaneous activities that are inconsistent with prior plan, Burgelman (1983) Hutt, Reingen, and Ronchetto (1988) and the occurrence of the logic of responsiveness or making prior plans irrelevant or incomplete in important ways because of facing unexpected jolts (Weicks, 1993). The other aspects found to influence the incidence of improvisation are environmental turbulence, real-time information flows, and organizational memory (Moorman and Miner, 1998).The researcher found similarity of the study case of firefighter and Fastrack and See Foods Manufacturer Company done by

previous researcher Weick (1993) and Moorman and Miner (1998) with the job routine and scope of Royal Malaysia Police.

Ops Cantas

Ops Cantas is an operation program by Royal Malaysia Police under the government NKRA mission's for reducing fear of crime among citizens. Ops Cantas was launched to keep track of the former prisoners who get back and become involved in crimes. Apart from that, the police will arrange to do patrol and invasion with team members of all ranks. They will do patrols in commercial areas, streets and residential areas. Dressed in full uniform, police officer will patrol together with beat police for at least three hours a week. Their presence will help to reassure the citizen about the commitment of the PDRM's senior leadership to tackle crimes. The processes of invasions have made the police expose with the option to get into improvisation once they meet with the crime cases. Moorman and Miner (1998) suggested that by using logic responsiveness, they assumed that heavier real-time information flows will create more possibilities for organizations to be revealed to unexpected information that improvised action (Moorman and Miner,1998). Thus, the researcher can determine incident or involvement of improvisation degree among those police who are involved with a mission in OPS Cantas as it will barely expose to any unexpected events during the invasion and patrol while completing their task.

Fear is based on perception and in some cases it might be enough to improve the public perception of the crime rate, or their perception of whether criminals get away with their crimes, or their perception of whether the police response is as quick as it should be

(Cordner, 2010). Government targeted at reducing crime as one of the missions under NKRAs programs, thus all Malaysian can live in a safer country. Therefore, in reducing crime rates, the police requires response to crime in a more effective way or in a short time frame. Crime affects all Malaysians, irrespective of race, religion, gender or income levels. The Royal Malaysia Police (RMP) is accountable for delivering targets to reduce crime levels significantly. The decision making is part of police officer's responsibilities. Besides, the police officer is required to make a decision in the time frame given, therefore, it is a 'must' for them to act efficiently and meet the deadline of report submission that is given by the court in order to maintain their job performance. (RMP, 2011).

1.2 Problem Statement

Malaysia needs to achieve the salient objective of becoming a peaceful country to be amongst first world class country in 2020. Thus, reducing crime is a vital part of Malaysia's plan in an effort to turn into a fully developed country. Essentially, the degree of fear of crime will give impact onto people's quality of life. According to Alvaro, Luis, Manuel, and Jorge (2009) , theft and disorder have significant impact onto business. PDRM reported that a proportion of service firms shows that the problems of white-collar crimes have increased by 12% between 2002 and 2007. The devastating effect on economic cost due to the rising numbers of crime will generate many problems and difficulties. The link between reducing fear of crime and improvisation in police can be found from the survey made by Cordner (2011): who pointed out that, slow police response in time between pre-plan and action, especially for emergencies might cause more fear among society.

In 2013, the Royal Malaysia Police Force has launched to reduce the overall reported index crimes with a focus on street crime. Human resource (police) is salient in determining the success of an operation, for instance, strategic human resource planning methodologies may be used to develop a competency architecture for an organization, from which job descriptions are built as a shortlist of competencies in determining the success of a project, (Hazer and Render, 2006). In this regard, there is a need for this researcher to study what are the elements that could influence the incidents of individual improvisation among police.

As described above, reported crimes index have risen since 2006 and dramatically it has diminished the quality of life and increases the overall economic costs of crime. Experience from the UK, the USA and elsewhere shows that significant reductions in crime are possible. In the UK, overall crime levels have fallen over 30% since 1995, and in major American cities, such as Washington, Chicago and New York, crime rates have fallen up to 50% since the early 1990s (Cordner, 2010). It is important to focus on street crimes such as snatch thefts, robberies without firearms and gang robberies without firearms. These crimes are traumatic in nature and have a significant impact on people's perception of safety. Fear of crime may prevent people from going to certain urban areas and in some cases may make people afraid of leaving their homes in the evening. Referring to Cordner, fear of crime can be reduced due to the response time by police force and the length time of action they took, (Cordner, 2001). Thus, the incidence of improvisation can be considered to be the new element in measuring the response time and led to job improvement.

1.3 Research Question

To develop better understanding of the entire study, this research will propose the following question:

- a) What is the relationship between knowledge, skills and factors of improvisation?
- b) Do police who work under time-constraints will involve improvisation?
- c) Do improvisational behavior reinforced by police's job description?

1.4 Research Objectives

The main objective of this research is to gain understanding on individual improvisation in service sectors specifically among police force. The specific research objectives are:

- a) to investigate the correlation between knowledge, skill and improvisational
- b) to determine the relationship between time-frame and incidence of improvisation
- c) to examine the relationship between job description and improvisation

1.5 Significance of study

The study contributes to the body of knowledge to both academics and practitioners. The police are accountable to reduce crime and keep Malaysia in peaceful nation. The finding provides the feedback from police to identify on elements that influence improvisation during completing the mission and works. The findings might be useful to get a better understanding on how improvisation improves their job performance. At the same point, this study has measured the level of certainty, internal and external factors of improvisational among police in Sibul, Sarawak area. This could

help the researcher to more understand about improvisation study in the appropriate area in Sarawak. Nevertheless, this research also has found some elements factors that influence improvisational that were explored by previous studies. As time and generation styles are changing and improving, the forces and factors have changed too. Most of the universities offer management studies which also emphasize on organization behavior as their one of core papers to educate and motivate the current generation and as useful knowledge for the readers.

1.6 Scope and Limitation of the Study

The study employed a primary survey among 217 polices officers in the study area of Sibul, Sarawak. Referring to IPD Sibul Statistic Report, Sibul, Sarawak has the highest number of property and violent crimes.

There are limitations discovered during this study. This study is only focusing in one district. As for that, the finding of this research cannot be generalized to all Royal Malaysia Police's due to time constraints to carry out the entire research through Malaysia. Besides, the sample of this study is among the police in Sibul, Sarawak. The selection of the individual police who specifically focus on high task force which involve in high sense of urgency is not determined in this study.

1.7 Organization of the Thesis

The study is organized into five chapters. The first chapter provided the background of the study and the objectives. The main objectives are to examine the factors towards improvisation among police in Sibul, Sarawak. At the same time, Chapter 1 defined the research questions, problem statement, and significances of the study as

well as the limitations of the study. Second chapter focused on a review of the existing literature related to the variables considered in this study. It reviewed the relevant literature on the issues related to improvisational, police characteristics and the factors also the research framework.

The third chapter discussed about research methodology, which includes research design, hypothesis, variables measurement, data collection and procedures, sampling method and also techniques of data analysis. Fourth chapter related to the findings of the study. The profiles of respondents, descriptive analysis and the result of the hypothesis will be presented. At the end of the chapter, the result is presented. Lastly, chapter 5 recapitulate the findings, discussion and the implications of the findings of this study. Limitations and the suggestions are also discussed in this chapter.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter starts with the theoretical underpinning and then followed by the literature review of improvisation with the independent variables which include skills, job description, and knowledge.

2.2 Theoretical Underpinning

Jazz and Theatricals Metaphors

Improvisation developed from an art creation of movement by a person who fully utilizes his or her creativity in order to cope with problems that occur unforeseen. There are two metaphors that shape an improvisation character, which is jazz and theatrical metaphor. Referring to Walzer and Salcher (2003), the jazz metaphor shows its principle of searching, similarity in mutual understanding prior performance step. As the performance demonstrates in real time to flow and this likely into improvisations characters because one's need to make a decision at the moment without time gap between planning and execution. The improviser also requires to understand the current situation and using his or her creativity to solve the problem or task. Walzer and Salcher (2003) also stated that, the link between jazz performance and improvisation was closely related. In the jazz performance, musicians are required to play together through their creativity and knowledge sharing. Throughout, the case study of "management by jazz" which was conducted by Walzer and Salcher (2003), they found that well-working

performance in jazz was due to jazz's basic nature of balancing two contradictory ideas of freedom and discipline at the same time in the musicians' minds. Therefore, literatures that have discussed jazz theories were popular theories that have been applied in previous case studies (Wlazer and Salcher, 2003). Meanwhile, according to previous researchers, Daly, Grove, Dorsch, Raymond and Fisk (2007), theatrical practices are one of the appropriate ways in increasing improvisation skills amongst front-line employees. There are a few numbers of previous researchers' standpoints regarding to theatrical metaphor in improvisation. Fisk (2004) cited, in order to understand unique customers, theatrical improvisation has been applied in the service industry. Meanwhile, Baron (2001) suggested that theatre in improvisation allowed frontline staffs to find the compatibility with customers to handle their services well. Therefore, theatrical improvisation can be used as a manual for employees preparing themselves upon delivery services (Baron, 2001). According to Harris (2003), theatre improvisation was about finding point's in mutual understanding between employees and customers. Grove and Fisk (1983) and Grove (2000) stated that, theatre improvisation can be approached by providing training for Frontline service workers, therefore, the theatre training techniques can help them to prepare themselves in order to meet unexpected situations during duties. Theatrical metaphors developed by few components, which are playwriting, auditioning, casting, performativity, improvisation, devising, interpretation, characterization, rehearsal, actors and acting (voice, breathing, kinetics, movement and physical theatre) and stage (Daly, Grove, Dorsch, and Fisk, 2007).

To conclude, the decision maker entitles to apply any appropriate metaphor during improvisation moment because both theatrical and jazz facilitate decision makers to put more arts and creativity during performance. As we can see, the familiar scenarios which are usually attached with jazz and theatrical metaphor are arts performance, jazz orchestra, comedy and theatre. All these performances were shaped by the process and activity that integrate with improvisation for solving the problem through emergence between action and real time flow, (Barrett; 1998, McKnight and Bontis; 2002, Mirvis;1998, Miner; 2001,and Cunha; 1999). Therefore, improvisation that relates with theatre and jazz metaphor defined by Merriam-Webster Online Dictionary (2006) as “to compose, recite, play or sing extemporaneously or to make, invent, or arrange offhand or to fabricate out of what is conveniently on hand” which then determine by creativity.

2.3 Improvisation

The variety of concept has been offered to address the concern of processes of improvisation and experimentation (Brown and Eisenhardt, 1997). An improvisation has been defined in various ways and in different areas from previous scholarships and academicians. The previous researchers under organizational innovation areas, Bastien and Hostager (1998) cited that, improvisation is defined as the adoption and implementation of new ideas by the individuals within the context of a shared awareness of the group performance as it unfolds over time. Meanwhile Barret (1998) from his study, defined improvisation in more cryptic way as he mentioned that improvisation as fabricating and inventing novel responses without a prescript plan and without certainty of outcomes. An improviser then could discover and capable taking action for unforeseen

situation in the future.

According to Nemkova, Souchon, and Hughes (2012), the combination of expert planning and expert functions of improvisation will give more positive consequences and valid as decision making orientations. The decision making is assumed to be more intuitive and adaptive under heuristic rules which lead to spontaneous and creative behavior (Bakken, 2008), (Wiltbank, 2006) and (Bramson, 2007). Thus, these creativity and spontaneity decision making are relative with improvisation (Vera and Crossan, 2005). Referring to Nemkova, Souchon, and Hughes, (2012), the combining of planning and improvisation are two orientations under the mapping decision theory against decision making in business and management practice.

From the decision-making strategy area shows that previous researchers like Crossan (1996) described improvisation as making decisions and execution in order to cope with changing needs and conditions. Indeed, the decision maker was extemporization in ideas and emerging in the most creative ways. Crossan (1996) also argued that, an improvisation lets performer take advantage of the opportunities that present themselves in the moment.

An improvisation was act as formal linking between planning and performance level, thus, its' (improvise) was meaningful in any organizations as stated by Aaby and Slater (1989), Cavusgil and Zou (1994), Shoham (1999),and Zou and Stan (1998). However, certain previous researchers have argued that conditions of performance

level have been found unrelated with planning, Katsikeas, (1996), Shoham, (2002), and Lukas (2007), but yet an explanation for these discrepant findings were still cryptic. (Nemkova, Souchon, and Hughes, 2012).

Eisenberg (1990) explained, improvisation is about the process of decision making by doing it with minimal similarity and elaborating it with easy structures in complex ways. However, Eisenhardt (1997) argued that, improvisation is when the actors, both adaptively innovative and efficiently execute, creating and organizing in a way such in the real time. Meanwhile, Hatch (1999) defined an improvisation as the performer uses the structure in creative ways that enable the adjusting structural basis of performance. He also stated that improvisation happens when the performers making structure implicit and know what they are able to express, thus, he conclude that improvisation as a structure that supports, but does not stated.

According to Nemkova, Souchon, and Hughes (2012), the examining of improvisation showed it is significant in Exportation Company. Improvisations allow exporters to understand on how they could make successful decisions in reality. Therefore, the improvisations were beneficial to export industry, especially in contribution of export decision making thought. Vera and Crossan (2005), who apart of business and management literature suggests that studies of improvisation resulting best outcomes in unexpectations situations. Klein and Dellarocas (1998) argued that, improvisation is about the ability to respond effectively when unexpected moment occurred. The previous researcher Pearson cited how improvisation viewed from the crisis

management aspect, as efforts to solve the intensity of a crisis and to keep it from spreading to others part in the organization by improvising the decision making without taking too long to adapt in the current environment (Pearson, 1997). Nevertheless, opposite from Pearson, Slocum (1994) give a definition of improvisation in a more general way, “improvisation will happen when the performer doing anytime for anybody, anywhere and anything”. The definition given by Slocum more closely and has relative with this study respondent whereby, the strategy in police’s job responsibilities requires them to give immediate response at anytime and anywhere to public.

Nemkova, Souchon, and Hughes (2012) cited, improvisation is one of the elements and alternative in decision-making styles which will give many benefits to the decision maker. Therefore, Nemkova and her partner found that planning and execution is about two different matters that converge and gives desirable outcomes. According to Berry and Irvine (1986), improvisation defined as day-to-day cognitive performance, while for Gardner and Rogoff (1990), improvisation is about adapting planning to the circumstances. Meanwhile, Scribner (1986) explained improvisation as mind in action in his previous study under cognitive psychology area. According to Ashton (1982), an improvisation makes an individual to not follow the decision model in their routine activity during normal circumstance, but developing new creations and innovative ideas (Evers and O’Gorman, 2011). According to Brown and Eisenhard, (1998) and Moorman and Miner (1998), improvisations is the situations where happens in high speed and remain unfold in own creativity.

Referring to Southworth (1983), improvisation is born out of the present situation “now” and it is likely to be ever changing and may be unconventional. Sociological perspectives on improvisation, shows that Machin and Carrithers (1996) defined improvisation as not having a stable response to external stimuli, but rather (create) different response according to circumstances. Thus, it is embodying different senses of people in different situations. Apart from that, improvised is about the extent to which meaning is invented by the people who immediately involved in the relationship of response and spontaneous process of creation (Powers ,1981) and (Sharron, 1983). Referring to Baker (2003), combination of composition planning and execution and convergence of creation and execution is defined as improvisation. Another studies from previous researcher assumed improvisation refers to deliberate as against with accidental or creation of novel activity (Nemkova, Souchon, and Hughes, 2012).

An improvisation is not only about spontaneity and creative ideas, it is beyond that which covering action and implementation (Nemkova, Souchon, and Hughes, 2012). Previous study under observation by Tellis (2009) found commercialized products or services not rely totally on creative inputs, but also it key element which is the conversion of ideas into implementation or called as improvisation. In this context, improvisation is considered as an index of three dimensions, namely action orientation Vera and Crossan (2005), creativity (or bricolage) Baker and Nelson (2005), and spontaneity (or extemporaneousness) (Baker, 2003). From previous export study, which held by Nemkova, Souchon, and Hughes (2012) found that improvisation was positively related to export performance.

There are general assumptions in the literature that improvisation always leads to positive outcomes and better performance (Vera and Crossan, 2005). Thus, improvisation makes the organization benefits more in the context of planning. Improvisation act as the latter frames for the decision-making process and stops turning into chaos (Brown and Eisenhardt, 1998). Hence, Nemkova, Souchon, and Hughes (2012) suggested that improvisation in their export study has a positive linear relationship onto planning and performance. According to Slotegraaf, and Dickson (2004), improvising is the capability of combination of creativity, resources, accumulated knowledge, skills, and action orientation which derived from the planning.

The issues of spontaneity closely linked to the creativity and immediate action. The spontaneity gives effect in greater responsiveness and this allows the export decision-maker closeness to customers, thus, these will be a precursor to trust between them (Nemkova, Souchon, and Hughes, 2012). The improvisation constructs by the combinations of spontaneity, creativity, action-orientation, confirmed and supported by the qualitative study. Other than that, spontaneity, creativity, and action-orientation appear related in that action, while spontaneity can act as a precursor (or aid) to creativity because it fosters stronger ties with customers from which novel designs and can be more easily or naturally emerge. The majority of respondents in Nemkova and partners research study gave responses that improvisation is very much relevant to the exporter as they involving varying degrees of creativity, spontaneity, and executing. An improvisation appears in exporting companies as a dominant decision-making paradigm

over planning and spontaneous in implementing (Nemkova, Souchon and Hughes, 2012).

According to Brown and Eisenhardt (1997), improvisation is occurring when combining limited structure with extensive interaction and freedom to make changes on current products. They also added that improvisation was an organizing strategy of making it up as the performer go along with it. From an innovation study area, Brown and Eisenhardt (1997) explained the meaning of improvisation as creating a product while simultaneously adapting to changing markets and technologies. Referring to Brown and Duguid (1991), improvisation is responding to whatever the situation itself, both social and physical throws at people, building, and collaboratively. Brown and Duguid also stated that improvisation view under organizational learning, as robust models that do justice to particular difficulties in which people find themselves. Ciborra (1996) cited that efficiently generate new combinations of resources, routines and structures which are able to match the present and turbulent circumstances also called as improvisation.

The moment of improvisation is occurring when performer rapidly building intuition and flexible choices to cope with a cryptic and changing environment. According to Eisenhardt and Tabrizi (1995), improvised rules that combining real-time learning through design iterations and testing with the focus and discipline of milestones and powerful leaders under the innovation aspect.

Referring to the previous researcher Ellis, the performer was improvised when he or she is detailing with issues as they came up, (Ellis, 1982). Johnson and Rice (1984)

suggested that, improvising in technology area happens when the degree to which an innovation is changed by the adopter in the process of adoption and implementation after its original development.

An improvisation can occur at any stage of the planning process, regardless of whether the decision has been planned or not. An improvisation can be a deviation from the plan, such as the implementation stage, or can occur in the absence of a plan. It is likely that the interaction of planning and improvisation makes it successful (Nemkova, Souchon, and Hughes, 2012). Nemkova and his researchers' partner also conclude that improvisation found to drive the exporters' ability to develop responses to the environment which competitors find difficult to predict or expect.

There are also several meanings of improvisation which have relative with each others. Crossan (1997) has defined improvisation as the spontaneity of action with a high level of intuition. He added, improvise happen when an action taken in a spontaneous and intuitive fashion by the performer. Meanwhile, in organizational learning study, Crossan and Sorrenti (1997) cited that, improvisation is occur when intuition guiding action in a spontaneous way.

Hatch (1997) described improvisation as an intuition guiding action upon something in a spontaneous but historically contextualized way. Apart from that, Kamoche and Cunha (1997) have defined improvisation from team working and product innovation perspective, which they suggested an improvisation was about the ability to

compose and perform contemporaneously, or the merging of composition and performance, or both. (Kamoche and Cunha, 1998).

Referring to improvisation guru's, Moorman and Miner (1995), organizing without preparation and deliberate also been defined as improvising action. Meanwhile, Moorman and Miner (1998) states that, improvisation is about composition, converging with execution and it happens in the convergence of time. Thus, Miner (1996) cited that, improvisation actions were both spontaneous and novels, which will result in the creation of something as the actions are unfolding.

Orlikowski (1996) claimed that technology changes are about an experience, staying and experiments with everyday contingencies, breakdowns, exceptions, and unintended result or effects. Thus, Orlikowski and Hoffman (1996) cited that improvisation was defined as an ongoing series of local innovations that embellish structure, respond to spontaneous departures and unexpected opportunities, and iterate or build on each other over time.

According to Pasmore (1998), improvisation is about how the performer created reactions in real time and emergent synergy. The performer also behaves in a flexible fashion, but still under the control provided by a set of agreements. The improvisation happens when the performer painting he or she into corners just to get out of them with intention, (Peplowski,1998), while for previous scholarship, Perry (1991) has cited that, formulating and implementing strategies together in real time will result the

improvisation moment.

Research conducted by Weick (1999) has shown a relationship between improvisation and performance. Weick (1999) stated that there is no gap between plans and execution in improvisation, thus, it was a must pairing subject, such as composition and performance, structure and process, process and product, and prospect from retrospect. The improvisation occurs when the performer thinking composition and spur of the moment simultaneously (Weick, 1999). In other hand, improvisation is about an on-going process and designs which are prepared to be modified any time and this allowed to let shifting pattern of attention and meaning imposed on a continuous stream of social activity (Weick 1993). Weick (1993) also found that an improvisation is about dealing with invisible working without pre-resolution and working with the unexpected. Thus, Weick (1999) stated his ideas that, improvisation can be defined as dealing with invisible working, whereby the task is without any prior stipulation and it is unexpected. In the aspect of organizational design, Weick (1993) described improvisation as invented immediately by a substitute when an organizational order collapses. Weick (s,d) study onto the disastrous happened onto firefighter and the action taken spontaneously. The study of firefighter conducted by Weick (s,d) has major relatives with the researcher study onto police in Sibul, Sarawak. As stated by Datuk Ayub Yaakob in the campaign of PDRM mobilizes 'civil policing' police need to make quick actions onto any public reports or crime incidents (Utusan Malaysia site, 2013).

According to Berliner (1994), improvisation can be defined as adding unique

features to every creation by reworking pre-composed material and designs, thus, in relation to unanticipated ideas shaped, transformed and conceived under the special conditions of performance by a performer. Referring to Hutchins (1991), an improvisation is described as the emerging of unexpected planning and action from the interactions among the participants. Thus, an implementation of the replacement process by local interactions, complex space for a task and social structure will fit each other for job completion.

Irby (1992) makes a similar approach in defining his study about improvisation, whereby he stated that thinking while taking an action in education was part of improvising. Bastien and Hostager (1992) cited that improvisation is about inseparable between the act of composing and performance in communication. Bjurwill (1993) also define an improvisation as reading and responding at the same time. An organization also improvised when they make a composition in real-time (Pressing, 1983). According to Solomon (1986), an improvisation in music is shown when the decision that affecting the composition of music is made during its performance. There is no separation between design and production (Weick, 1993). Cohen and Van (1986) states that, improvisation can be described as a tradition of organizational theories of temporal order. However, there is an argument due to the special case in intra organizational innovation, which improvisation is defined as deviation from existing knowledge and practices (Rogers, 1983) and (Zaltman, 1973).

Previous research evidently proved that much elements or antecedent factors contribute to improvisation. The significant effect of improvisation to organization, some

studies claimed that the individual factors influence the incidence of improvisation. With regards to this, therefore it is believed that skills, knowledge, time and job description could be the positive antecedent factors to the incidence of improvisation.

2.4 Skills and Improvisation

Reaching improvisation occurrences requires characteristics that belong to the decision maker. According to Bednar and Welch (2012), it was necessary for people learned and appreciates the skills. Thus, this will represent the efficiency of their work when people seek solution for technical problem during emergency moment and resulting “good” solution or possibility of beneficial implementation.

Referring to Ostroff and Bowen (2000), several HR (Human Resources) practices, such as training and development, teams, skill based and job enrichment encourage employees to possess a broader range of skills which will help them to be the adaptive and flexibility worker who can respond quickly to changing technologies, customers demand or other organizational needs.

HR practices can give influence or direct impact on workers' performance generally and specifically in improvisation when HR providing practices that develop the skills, attitudes and behaviors of an organization's workforce. Thus, this will lead to structural, operational efficiencies, and helping organizations to implement a strategy that is consistent with their goals (Ostroff and Bowen, 2000) and (Ulrich, 1997).

According to Ribeiro, Coelho and Gomes (2011), the Human Resource

Section (HRS) and organizational culture induce uniform expectations about workers' behavior and skills which also has a notable impact on improvisation behavior. Ribeiro, Coelho and Gomes (2011) also found that employees' perceptions can be influenced by communication, skills and characteristics which result in shaping people's final actions.

According to Webb (2006), those good and forward thinking people always have a prediction and concerns regarding the need to adapt for changes and prepared with the necessary skills and knowledge to meet those changes. Thus, this will support business to achieve success by setting an improvisation.

Literally, Day (1994) refers improvisation happen to an individual with the capabilities of a complex combination of skills, routines, processes, and accumulated knowledge developed over the period. Therefore, Slotegraaf and Dickson (2004) augment that, planning is such a capability and improvisation, meanwhile, a capability came from a compilation of resources, skills, accumulated knowledge, creativity, and action orientation.

Referring to the study that has been conducted by Nemkova, Souchon and Hughes (2012), better skills such as specific language skills can allow buyers and sellers to understand situations and each other better. Hence, this will lead to occurrences of improvisations and successful planned and decisions. For the study conducted, Nemkova and partners also found that there was a positive relationship between improvisation and sales effectiveness, which parallel with (financial, experience, skills, network) resources

in the export field.

According to Chin (2004), project managers with the right combinations of technical, business and interpersonal skills add value have a capability of balancing the needs of process against the needs of innovation. Therefore, an innovation is an important element, but only when the requisite skills are present to manage it effectively. An innovation can be planned and emergent in nature of improvisation occurrences.

Beevor (1999) claimed that, strategic ability is not only about be a good planner, but also best implementer of plans, therefore he gave complete tactical skills on the ground as it related to the key of tactical changes. These supported by Cuikov (1964), as natural improviser, things are resolved not only by strength but by skill, resourcefulness and speed.

Rapid dissemination of knowledge through a combination of socialization and internalization ensured that an improvisation technique became part of the collective mind. As well as the stories were passed among the Russian troops of Stalingrad whereby they swift permeated of the same attitudes and skills as earlier defender amongst newcomers (Nonaka, 1991).

Referring to Miner (2001), the ability to foster technical improvisational productions within a time frame given was depending on the “mental modes” of cognitive psychology and the technical. An example for the “mental modes” of cognitive

psychology was schemata, paradigms, beliefs, and viewpoint, while the technical were know-how and skills. In addition, Miner realized that knowledge of the improvisational skills are difficult to codify and understand to turn it from intrinsic to explicit by their virtue. Miner (2001) also stated that, skills of experimental and memory for particular teams and engineers who paid close attention to the activities, and served as an informal organizational memory lead to the improvisation formation in ones' project.

Orlikowski and Tsoukas (1996) argues that, the case study focusing on the organizational practices found that an individual usually completing their tasks by develop his or her own creative potential of human action, which came from their organizational knowledge. Therefore, researchers' attention is drawn to what they call as the element of an emergence of skilled actions and maintenance of originality in organizations.

Referring to Cunha, Rego and Kamoche (2009), managers regularly consider in the possibility of making improvisation to occur, such as training in improvisational situation will develop skills amongst employees. Besides, Cunha and partners have defined improvisation in the simplifies organizational contexts, which is, the emergence of planning and execution in order to better deal with the characteristics of an unexpected situation. These researchers argue that employees should develop their skills in order to stimulate an improvisation occurrence for providing better service in recovery operations.

The Royal Malaysia Police is one of the vital service organizations for our

country and from previous study in 'Improvisation of Service Recovery' conducted by John (2006), indicated that as the services providers' organizations, their service performance relies greatly on improvisation. Besides, John stated that skills were very powerful resources in recovering customers for whom the service may fail. John summarizes that "great services organizations are great improvisers".

The police in Sibul, Sarawak have to directly deal with the public during duties as explained in Chapter One, and this lead to improvisation occurrences. Referring to previous researchers Chase, (1978), Kelley, (1990), and Mills and Morris, (1986), some services require customers' involvement throughout the entire process. Therefore, the need of employees' skills in improvisational was also applicable to customers, especially when the service failed and it is needed to conciliate dissatisfied customers.

Chase (1978) stated that, employees must be trained by employer to gain skills to improvise and also to invite customers in the improvisation process due to high contact systems between them. Therefore, this creates them feel that they have some control over the recovery outcome (Chang, 2006).

According to previous researcher Wirtz (2008), the development of skill lead to improvisation occurrences and this skill can be harvested by providing training. This training can also help an organization to have excellent service employees and meet managements' service excellence standards.

2.5 Knowledge and Improvisation

The importance of improviser's knowledge as a part of improvisation have been discussed by several previous researcher as it was one of the popular factor in developing improvise actions. Schoen (1983, 1987) suggested that, knowing information in real time during an unfamiliar situation will give an edge to improviser because they are capable of giving an immediate response and this scenario of actions was familiar amongst professional practices. This supported by Cheetham and Chivers (2000) in their study on competence of professional practices, the professional practices need a combination of knowledge and immediate reaction in order to spur the improvisation moments.

The knowledge level being synonyms with one's education background, thus, in order for a person attach with an improvisation, the "must" criteria in that person were education and social background. The improviser's education level was required to determine his or her knowledge resources which will influence his or her improvise action (Bednar, and Welch, 2012).

For a human survive in the challenge of unfamiliar problem with high times constraints, he or she supposed to have the knowledge either formal or technical scope, Ciborra, (1999) Weick, (1993) in order to making competence of quick decision and spur in improvisation (Bateson, 1972).

According to Kallinikos (2004), an improvisation process threw away the formal procedure in getting time for gathering information before ready to making plans in the process of making decision and giving a response, instead she cited that a person totally relies on his or her level of knowledge and skills due to restraint of responding period. Therefore, this “cut-off” step procedure was meaningful to an improviser in giving responding during unfamiliar environment.

This era spurs rapid changing in fashion and trends of all living issues and activities. Therefore, in order for one’s survive with prosper performance, they will need to emphasize in few aspect of preparing themselves when meet the unforeseen situation in the future. The aspects that listed by Hurwitz (2006) were positive and readiness of mental, skills and knowledge. Thus, Martyn, Sloman and Lois Webster (2005), suggested the uncertainty economy's challenges became the appropriate “teacher” for decision maker preparing prior knowledge which will be used during improvisation moment.

Literally, Day (1994) cited that, improvisation not solely derived from planning, Slotegraaf and Dickson (2004) but also allied from the combination of these rows of resources; knowledge, skills and routine process that develop over time.

The essential of knowledge in spurring improvisation proved by previous case study regarding export decision making which conducted by Nemkova, Souchon, and Hughes, (2012), whereby they found that, the main reason for those export-specific staff succeed in improvisation because they have knowledge in the current markets situation

compare than high level hierarchy staff.

Therefore the key-words for one's capabilities in decision making for rapid markets were the one with appropriate knowledge. The case study proved it emphasis on knowledge, whereby the background of export staffs have been distinguished in several aspects, such as language skills, knowledge in exporting and marketing, experience in overcoming the risk and capable to execute with little or without planning in unforeseen situations. Throughout the analyze onto respondent in export company also found that the possibilities of improvisation during making decision is high when the manager relies on his or her skills and knowledge instead of luck.

The knowledge gain from prior improvisation which manager had faced can be assumed as one of the resources for manager spurring in the next improvising act. Both skill and knowledge that managers have can support his or her self to be more ready when meet unfamiliar and unfavorable situation in the future. Brady (2002) stated that, gaining knowledge from prior improvisation situation can be the right way for decision maker learning more about how to respond to uncertainty future conditions. It just likes on-going process learning for the improviser in order to achieve perfection of the management process. This supported by Miner (2001), present knowledge and practices as a part of component to reach innovation.

The study of improvisation among Stalingrad troops conducted by Brady (2011) focused on the importance of knowledge to the improviser. The story of the Stalingrad

trained their apprentices by applied same skill and techniques like prior defenders through knowledge of articulation, socialization and internationalization, which spread till it be part of collective mind amongst them (Nonaka, 1991).

There is linear positive relationship between knowledge management and organizational improvisation as the more knowledge play it roles by improviser, the more improviser attach with improvisation moment. This combination harvest an improvisation moment in one's organization (Kamoche, and Cunha, 2008). They also agreed trigger for improvisational existence was once people fully utilize his or her knowledge which later generates the outcomes. Nevertheless, Kamoche and Chunha (2008) standpoints that, knowledge is not only simply apply into making decision but also argues on how it will integrate, emergent and contextual in unexpected situation. Therefore, these researchers emphasis on the paths for knowledge converted into useful improvisation resources into two separate party; individual and team like jazz and theatre performance. Kamoche and Chunha (2008) suggested that, knowledge created from one's actions, therefore the improviser need to categorizing the knowledge either solely or collective knowledge sharing before emerge it into planning and actions.

Indeed, Kamoche and Cunha's (2008) point of view on the factor knowledge as massive conductor in improvisation, as they cited that knowledge is precious to the improviser because it is privileged and cannot be simply copied by other's person. Thus, those who react spontaneously onto unfamiliar problem with his or her own knowledge will get an opportunity for them to survive well in this rapidly changing world.

Nevertheless, they assumed an organization with less improvisation is the one be conducted by a manager who thinks that learning into 'improvisation' knowledge was hard and abandon of it from organization process.

The continuation of learning that nexus between knowledge and improvisation is vital as it was familiarly been highlighted in most improvisation literature. The reaction of convergence routines and organization knowledge will spur the improvisation in real time (Kamoche, and Cunha, 2008).

As mentioned earlier, emergence of both aspects; routines and experiences will generate improvisation momentum, therefore Kamoche, and Cunha (2008) wants to focus on retention of categorizing the knowledge into its appropriate nature. The appropriate used of knowledge will spur reaction during improvisation. Kamoche has suggested that, knowledge imposition during spontaneous act regularly was emergent, unplanned and combines with performing arts (Kamoche, Cunha, and Cunha, 2003). This significantly indicates that knowledge is crucial and complex as a part of improvisation resources.

2.6 Time Frame and Improvisation

The implications of time frame and improvisation is crucial, these have been agreed by previous researchers in improvising field such as (Cunha, 2006), (Crossan, 1998), (Crossan, 2005), and (Vera and Crossan, 2005). These researchers determine that those people who engaged with improvisation is because it requires them to react

immediately due to scarcity of time resources in planning and understanding the current environments. Besides of lack of times resources, real time flow also a part of the major characteristics in true improvisations. For example, the musician had to focus with the other musicians who playing at the time they require to communicate through performance (Eisenhardt, 1997).

Referring to Hurwitz (2006), an improvisation occurs when a person have lack of time in decision making and the scarcity of information. Since an improvisation process was little or without planning, this kind of the decision making seems to be risky in business field, nevertheless, Hurwitz suggested that improvisation is appropriate for those in the learning and development business due to rapid changes in this decade. He added all matters in the “speed way” recently. Hence, the people can’t really stay at one problem in a long time. As a result, today’s business requires a person who can get into an ongoing process with the usability of own way of thinking. As similarity in organizational behavior literature, reflector or reflective must be in present time as the ongoing process was running (Webb, 2006).

An essential of time frame also been referred by Vendelo (2009), the lack of time resources will spur an improvisation occurrences and this will allow the improviser to cope with an unfamiliar problem. This described that permitting in times resources during planning will portray that luxury for a particular process or project. Nevertheless, improvisational approach indicates that speed required in the planning process. In the case study of the export industry, which conducted by Nemkova, Souchon and Hughes (2012) have indicated that, successful of improvisation will give greater implication in

terms of speed of response for few aspects such as opportunity in the marketplaces, customer inquiries, and competitors moves. This is because there is less procedure to follow and flexibility techniques which can be save times.

According to previous research study in the industry field which conducted by Akgu'n and Lynn (2002), three hundred and fifty four respondents claimed the main reason behind prosper in terms of speed-to-market even though in turbulent, technologies and rapidly changing market was because of group of improvisation people. This study described that the element of time is important upon the pressure of the restraint period of time frame, these scenes require for decision maker meet starting point of improvisation occurrence. Despite of one's organization has its own way in managing a project with appropriate time, budget, and goals, all these factors still seems shaky if compare with the time frame because it was a precious factor or key elements in measuring the success of a particular project (Atkinson, 1999). It is supported by Moorman and Miner (1998) which stated that, the degree of compression between composition and execution at the same time will result of improvisation occurrences.

Referring to previous researcher Ciborra (1999) and Crossan (2005), the small gap of time between the design and execution of activity will influence more improvisation. Nevertheless, there was possibility for two processes of planning and execution process joining together in the same time when the situation was restraints. These prove the positive relationship between time frame factor and improvisation occurrences among Police in Sibul, Sarawak.

A few years ago, Leybourne (2009) conducted a study on agile project management and he found that in order for organization reducing the time period and cope with compression of current problems, improvisation will take place. This approach supported by Chin (2004), the agile project manager dealing with the uncertainty situation with internal and external through time, cost and scope. The time constraint is vital factors that influence improvisation occurrence. Leybourne (2009) cited that, pressure on challenging deadlines of time frame in analyze limited choices for decisions making as a main reason for starting point in improvisation.

Meanwhile, Eisenhardt and Tabrizi (1995) saw improvisation as facilitate steps during a short period with objectives to minimize certain jobs or the total process. The purpose of application of improvisation was to minimize the time taken for completing tasks and process, which by reducing the project timeline. For example, Wujec and Muscat (2002) shown that, USA market fell on 1990s due to massive of improvement in new product development that drive by key factors which is time frame. Moorman and Miner (1998) supported by states that, actors capable to improvise by learning about the implications of their actions due to real-times flow information.

The previous researcher, Kamoche, Cunha and Cunha (2003) have suggested that, in order to achieve innovation, creativity, adaptability and management in uncertainty times, it is important for an organization harvest and support the actions of those who learn in the improvising process because they could survive in a short period.

According to Cunha (2003), the study emphasizes on the role of immediate assess on improvisation because upon failure in the existing plan, those people could set up a new one with the rigidity of times. This supported by Moorman and Miner (1998), as the result from yesterday actions will be different with the present, improviser improvise in impromptu action, whereby, they act from the plan in real time. Literally, improvisation happens upon an urgent event. The key element of competencies in service recovery is time frame. The speed of response was a part of improvise character which will support the convergence between planning and action (Kamoche, Cunha, and Cunha, 2003).

An emerging between time frame and execution giving influence to organization reshapes its process for resolve unfamiliar problematical, for an example, jazz performance, theatre and comedy. This supported by few previous authors who agreed that creativity and '*arts*' in performance for one's project is a combination of improvisation occurrences, Barrett (1998), McKnight and Bontis (2002), Mirvis (1998), Miner (2001) and Cunha (1999).

Meanwhile, according to Baker (2003), the vital of improvisation resources being listed, nevertheless, he cited restraint and short of reaction times as one of the important aspects in starting point of improvisation existence. This supported by Jambekar and Pelc (2007) as they suggested the way to differentiate kind of improvisation is the vital of time horizon besides types of problem and business chances aspects. They also cited that, the

decision maker will fully utilize his or her present resources available in order to cope with situation under time constraint.

Ciborra (1999) suggested that time constraint as the starting point of improvisation existence, he cited that “a situated performance where thinking and action emerge simultaneously and on the spur of the moment. It is purposeful human behavior which seems to be ruled at the same time by intuition, competence, design and chance”. Meanwhile, the sequences of previous researchers have a similarity point that, whereby they agreed with a person will start “fall” in the improvisation moment once he or she facing unfamiliar problem with the situation of time frame and resources available (skill and knowledge) (Leonard and Rayport, 1997), (Leith and Riley, 1998), (Fournier, 1998), and (Martin, 1999).

For “guru” of improvisation, Moorman and Miner (1998) stated that, from the consequences of shrink line between one’s planning and react will tend a person to “fall” in improvisation zone. They also stated that the combination of improvisation was absolutely regarding “real time bearing”. Therefore, in previous researcher case study on new product development, Poolton and Ismail (2000) suggested that, improvisation is a right concept to ensure the new product structure develops smoothly because it guides one’s manager to awareness on the rapidly changing market due to trend and fashion that flow by times.

In the service provider organizations, the real challenger is the one who capable in handling unique customer in the present times due to unfamiliar request. The moment of customer requires high expectation of speed responding by service employees will trigger an improvising action. This show that time frame plays an important role for service industry people, which tend to react on improvisation during duties (Mohr and Bitner, 1991). It same goes with this research study, as the sample design profession is police. The profession falls into the service provider organization in the nation and public security which requires them to react immediate on time.

2.7 Job Description and Improvisation

A job description is details information that a person might use for general tasks, or functions, and responsibilities of a position. It may often include to whom the position reports, specifications such as the qualifications or skills needed by the person in the job, or a salary range. Job descriptions are usually narrative, but some may instead comprise a simple list of competencies; for instance, strategic human resource planning methodologies may use to develop competency architecture for an organization, from which job descriptions are built as a short list of competencies (Hazer and Render, 2006). Every police have to understand their tasks or order given from their leader, responsibility, roles and position that they hold, hence they also requires to resolve any unforeseen matters that might occur in the future.

As a decision maker, all managers who tied with his or her job description and responsibility have to deal with daily crisis through improvisation, in order for them to

solving an unforeseen problem. The managers require giving responding acts for making decisions due to his or her position in an organization (Brady, 2011).

Basically, Hazer and Render (2006) defined job description as characteristics of tasks and its concept, while Jones and George (2008) suggested that concepts of chain and command that explored in Max Weber and Henri Fayol relates to the authority structure which draw that subordinate has responsibility to report to a superior. Nevertheless, the crisis management literature has critics this kind of command hierarchical model. As stated by Quarantelli (1997), this command and order concept is incorrect assumption for position that centralized in crisis as it will restraints them to react to crisis response. Meanwhile, Drabek and McEntire (2002) and Bigley and Roberts (2001) cited this flawed concept avoid an organizational flexibility to cope effectively in an unstable task environments or improvisation. Hence, job descriptions play important roles in improvisation occurrence, especially in police force task like PDRM which their duties require them having direct contact with the public and be ready with any unforeseen circumstance.

According to Brown and Duguid's (2001), the way of completing task which drawn by job description should be clearly analyzed in developing new knowledge process Nahapiet and Ghoshal (1998), and it will be appropriate for improvising action. This supported by Wenger (1998) as he stated that common task and routine practices that being listed in the job description will generate technical knowledge which also plays a role in improvisation.

According to Jambekar and Pelc (2007), the job description or work surrounding ingredients such as communication, information sharing, teamwork and trust will absolutely influence improvisation.

As stated by Hazer and Render (2006), the job description approached a person to use its general tasks, or functions, specifications such as the qualifications or skills needed by the person in the job, and responsibilities of a position. In previous research studies, Orr (1990) found that, technicians did their best for completing his job in the real activity of daily work by learning to make better sense of the machine. In order to maintain photocopiers machine condition which absolutely major part of technician responsibility, highly skilled of improvisation is required, therefore, this approach relating to the job description which highly situated with improvisational relationship.

Research conducted by the researchers, Corella and Cunha (2002) indicate that, job practices have the possibility to “harvest” an improvisation occurrences.

The rapid changes of this century lead to the dramatic changes of individual roles and work. Thus, the nature and description of individual jobs will be more complexity. For individual workers cope with challenges in the future, their works requires them to be more powerful in term of creative in solving the problem. Thus “job thinking” has lengthened from head (mind) to hand (reflections) and extended to an improvisation occurrence (Polton and Ismail, 2000).

According to Polton and Ismail (2000), competitive nature workplace has

augmented movement in order to compete in this rapidly changing decades. The nature of work has experience of changing dramatically; nevertheless work practices still evidently indicate that improvisation has a positive linear relationship with this changing matter. This supported by Canfield and Miller (1998) whereby they suggested that, this decade has shown huge improvement in creativity and innovation in jobs and profession if compare from the previous one. Although, some organization restraint, it's creative remain potential behind the wall.

Regine and Lewin (1999) cited that, in order to have creative and committed workforce who have potential in improvisation, a manager needs to set "open approach" types of business work. Regine and Levin gave an example of "open approach" is when managers delegate his power of decision making and control because trusted his employees will operate the organization efficiently. Thus, an "open approach" reflecting to the nature's job of employees and undoubtedly was contained in the job description.

Some of the jobs require the person in the position to act improvising due to their responsibility that enshrined in the job description. The professions, such as cabin crew and police have similarity in the possibility of unforeseen situations. Thus, previous researcher Daly, Grove, and Dorsch, and Fisk, (2007) did their study on European Airlines companies with included improvisation training in their induction program. Profession or job such as cabin crew need them to expose with improvisation training, for them to be more ready when facing unfamiliar circumstances while performing their job responsibilities. Referring to Daly, Grove, Dorsch, and Fisk, improvising learning is vital

for jobs like cabin crew, which involving “service theatre” because they need to be ready become front-stage service employees.

This indicates that jobs will influence reflection on improvisations. As the study conducted by Daly, Grove, Dorsch, and Fisk (2007) at European Airline, shows that respondents agreed that their professions itself need them to improvise often and they get excited to learn about how to reflect upon improvisation effectively. They regularly being required to perform and acting on stage as part of their work which leads to components of a theatrical production such as improvisation in order to play the roles of cabin crews. The resulting of improvisation training shows those new hires cabin crews have the possibility to practice the value of improvisation when they finished the training and get back to work.

An improvisation can be categorized under “added value” which a person with that value will have the capability when dealing with unfamiliar situations, especially in the service delivery sector (Daly, Grove, and Dorsch, and Fisk, 2007).

There was an assumption of more extemporization than the relevance of technical in the application of technical knowledge in the way work is done. SchoÈn's (1987) suggested that technical knowledge still plays its role even it is acknowledged in the job description. This professional practice theory suggests that occupation tend to react in the way of extemporization.

The work itself in a particular profession involves in extemporization and recognizing that practice involves an “artistry” aspect. Referring to Cooper (1995), examples in his study of Apollo 13 indicates that improvisation alongside with specialist knowledge of the job itself. From the study conducted by Cheetham and Chivers (2000), it shows certain type of professions facing problems during unfamiliar or non-routine situation as part of their responsibilities, thus they react extemporization which a part of improvisation occurrence through wide theory and their declarative knowledge.

2.8 Conclusion

This chapter explains the documentation of a comprehensive review of the previous published and unpublished work of the secondary sources of the data and information in the area of specific interest to the researcher. From the previous studies, the researchers measure the improvisation occurrences of variables that have been discussed (skills, knowledge, time frame, and job description). Another critical issue debate in this chapter is the theoretical underpinning that shows jazz and theatrical model that being used by previous researchers in determining the process of improvisation spurring with other variables related. The relationship between dependent variable and independent variable will lead to the hypothesis formula in next Chapter 3.

CHAPTER 3

RESEARCH METHODOLOGY

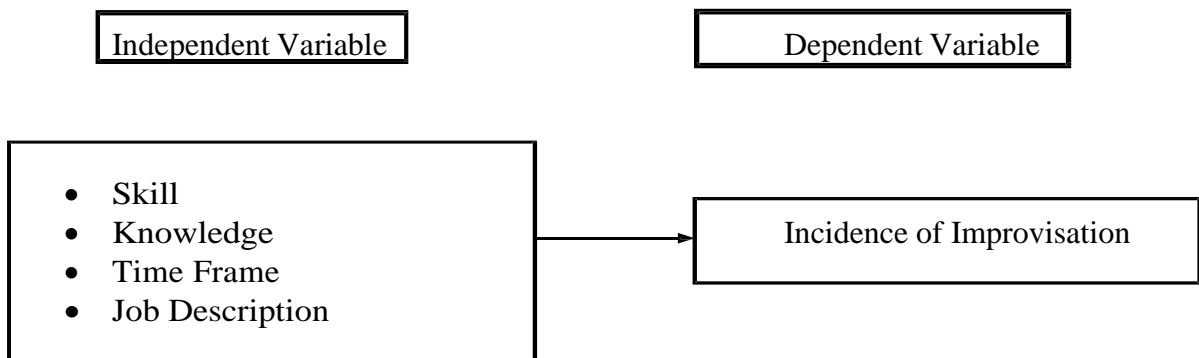
3.1 Introduction

This chapter will discuss on the methodology that specifically focus on how the researcher conducted the research. This chapter will cover research design, research framework, population and sampling method, instrument and measurement regarding to the data collection method, questionnaire contents, and hypothesis and proposition development, the Reliability Analysis and summary of the chapter.

3.2 Research Framework

The study is focuses on reviewing the influence of independent variables namely skill, knowledge, time frame and job description towards dependent variable which represent improvisation occurrence. In order to examine the relationship between these two variables, a theoretical framework model is formed as shown in Figure 3.1.

Figure 3.1



3.3 Hypotheses Development

Based on the study the researcher found that there are four hypotheses and the study is intended to investigate the factor influencing the incidence of improvisation.

HYPOTHESIS 1

H1o: There is no relationship between skills and improvisation among Sibul police.

H1A: There is a relationship between skills and improvisation among Sibul police.

HYPOTHESIS 2

H2o: There is no relationship between the knowledge and improvisation among Sibul police.

H2A: There is a relationship between the knowledge and improvisation among Sibul police.

HYPOTHESIS 3

H3o: There is no relationship between time frame and improvisation among Sibul police.

H3A: There is a relationship between time frame and improvisation among Sibul police.

HYPOTHESIS 4

H4o: There is no relationship between job descriptions and improvisation among Sibul police.

H4A: There is a relationship between job descriptions and improvisation among Sibul police.

3.4 Research Design

According to Zikmund (2003), research design is a master plan specifying the methods and procedures for collecting and analyzing the needed information. It is a framework of the research plan of action. The objective of the study included in

the design to ensure the information collected is appropriate for solving the problem.

The research was basically in main three primary areas, which are demographic profiles of a Police in Sibul, the incidents of improvisation in completing tasks or job, and the factors towards improvisation occurrences, which the researcher has categorized it under four elements;-

- i) Skill
- ii) Knowledge
- iii) Time Frame
- iv) Job description

This was a correlation study which attempted to investigate the factors that influence occurrences of improvisation during completing task. The previous research, such as “The impact of improvisation training of service employees in a European airline: a case study” was conducted using the survey method. According to Campbell and Stanley (1992) the survey for this case study is a pre-experimental design, descriptive research method. The appropriate survey can be beneficial when a researcher wants to collect data on phenomena that cannot be directly observed. Data is usually collected through the use of questionnaires, although sporadically researchers directly interview subjects. Surveys can use qualitative (e.g. ask open-ended questions) or quantitative (e.g. use forced-choice questions) measures.

The research methodology used was based on a quantitative method to investigate the research propositions. A survey questionnaire was used to gather primary data from

respondents. The research was conducted using a 5 page questionnaire, which was a modification to the questionnaires by (Wang, 1999).

3.5 Population and Sampling

Population for this study was police in Sibul, Sarawak areas. According to Sekaran (2003) the researcher must ensure that the population be made up of those entities which are actually the information searched by the survey. A sample is a subset of a population. It comprises some members from the population which has been selected by the researcher. The numbers of police in Sibul, Sarawak are five hundreds and twenty men and women. Thus, the researcher decided to use stratified random sampling method for utilized this research and a total of 250 questionnaires were distributed to the police in Sibul, Sarawak and only 217 questionnaires were able to recover. Data was collected using a six page questionnaire, which was a modification to the questionnaires by (Wang, 1999). The questionnaire was designed for police who are currently residing and work at all police stations in Sibul, Sarawak area. The questions were designed in ways, which can be used to distinguish between the department and ranks level of position. The questionnaires were distributed or hand out in every police station in Sibul district. The information acquired was then analyzed using SPSS analysis. Questionnaires were designed to collect general information on the characteristics of police in Sibul and their spontaneous kinetic or improvisation during duty (gender, age, marital status, numbers of children, department, type of ranks, and years of experience) the significant factors of improvisation incidents among police in Sibul, Sarawak during their work duty.

3.6 Instrument and Measurement

In this study, a structured questionnaire was developed and it was personally distributed to the police in Sibul, Sarawak. There were four parts in the questionnaire, consists of Section A with 8 items, of the police demographic background. While in Section B, consists of 5 items of the incidence of improvisation in police's duties. Section C, the factors of improvisation section of the questionnaire involved the following areas such as skill, knowledge, time frame, and job description as attached in Appendix A.

Finally, in Section D contain one item only which relative with the relationship between improvisation and job performance among police in Sibul. This consists of 25 items using Likert scales of five points ranging from strongly agree to strongly disagree and dichotomous scales with two options of yes and no as an answer. Measures of improvisation used in this research were a modification of the items developed by (Moorman and Miner, 1998) and (Nemkova, Souchon, and Hughes, 2012). There are five items have been adapted. Whereas, the items pertaining to the importance of skills that influence improvisation was adapted from Ribeiro, Coelho, and Gomes (2011), and Nemkova, Souchon and Hughes (2012). Knowledge was measured by adapting the five items scale proposed by Cheetham, Chivers (2000), and Nievesa, Quintanaa, Osoriob (2013), while the time frames were measured by adapting four item scale developed by Nemkova, Souchon and Hughes (2012). Meanwhile, the item's measurements for job

descriptions is taken from Ribeiro, Coelho, and Gomes (2011), Jørgensen, Owen and News (2009), Cheetham and Chivers (2000), and Daly, Grove, Dorsch and Fisk (2007).

The questionnaire was developed based on the research framework which was developed earlier. The variables are discussed and the procedures used to assess the reliability of this measure are discussed.

3.6.1 Demographic Background

In Section A of the questionnaire, respondents were asked roughly about their demographic background. Among the questions asked were related to education level, gender, age, marital status, number of children, ranks level, years of services and the departmental service. This is a descriptive study section.

3.6.2 Incidence of Improvisation in Police Duties

Section B of the questionnaire consists of a descriptive study in the occurrence of improvisation in the respondents' daily works. The questions were to identify the police spontaneous and improvisation act for completing the task given.

3.6.3 The Factors Influence Improvisation in Police Duties

Thirdly, descriptive study was used to analyze factors or elements that influence police in improvisation. It involved data obtained in Part C of the questionnaire. The respondents questioned in different categories which classified as Skill, Knowledge, Time Frame and Job Descriptions.

3.6.4 Improvisation and Job Performance

The question in this section was pertaining to the relationship of improvisation and job performance from the respondents' perspectives.

3.7 Analysis

The researcher was used Statistical Package for the Social Science (SPSS) version 20 in order to check the raw data in finding for omissions, legibility and consistency before being coded for analysis. Basically, the objective for analysis the data and hypothesis testing, several statistical testing were done. The data gained from respondents in the questionnaires will be entered into a Microsoft Excel (2010) spreadsheet with specific headings for each of the variables used. After that, coding starting with '1' will be represents each respondent for reference purposes, and the raw data was appropriately coded for the analysis in SPSS. Then, the data will be describe through these statistics, which are mean, standard deviation, range, and frequencies. Therefore, for the researcher was performed the data using these following statistical tests, which are, Cronbach's Alpha to test the internal consistency of item scales, Multiple Regressions, Classical Assumption for normality test and Descriptive Analysis.

3.7.1 Reliability Analysis

One of the criteria for selection of past instruments was internal consistency of the scales using Cronbach's Alpha reliability coefficients. Sekaran (2000) cited that, Cronbach's coefficient consistency, the more closely gets to 1.0, and 0.60 was the better category, nevertheless that the 0.50 is considerable but poor. The reliability coefficient

for factors that influence improvisation is 0.63, considered a better level of internal consistency. Validity can be defined as the ability of a scale or measuring instrument to measure what it is intended to measure. Content validity was evaluated by piloting the questionnaire to six individuals to check validity. The details of pilot test can be referred in next chapter four. A pilot study is described as any small-scale exploratory research technique that uses sampling, but does not apply rigorous standards (Zikmund, 2003).

3.8 Conclusion

This chapter provided a description of the research methodology applied in this study. It outlined the research scope, questionnaire design and described the sampling method. The data processing that was aimed at describing the data collected is provided in the following chapter, which is Chapter four.

CHAPTER FOUR

ANALYSES AND FINDINGS

4.1 Introduction

Chapter four discusses the present analysis and findings of the study. Specifically, it analyzes the data and reveals the results of the survey that begins with a demographic or background of the respondents. It followed by the discussion of the factors of improvisation occurrences on respondents and hypothesis testing of the relationships between the interested variables. Other relevant findings that have been investigated during the survey are also reported. This data analysis would help a researcher to answer the research objectives. The SPSS version 20 was applied to present the result of analysis and finding in this study. The data was collected from all police stations and IPD (Ibu Pejabat Daerah) located in Sibul, Sarawak.

4.2 Response Rate

The total population of police in Sibul, Sarawak is five hundred and twenty polices. The researcher has distributed 250 copies of the questionnaire, but only managed to collect a total of 217 copies of the questionnaire from the respondents for analysis in order to represent the population of police in Sibul, Sarawak. Referring to Sekaran(2003), sample size for a population size more than five hundred people appropriately having more than two hundred respondents as sample size for specific research studies.

4.3 Pilot Test

A pilot study is described as any small-scale exploratory research technique that

uses sampling, but does not apply rigorous standards (Zikmund, 2003). In this research study, the researcher has held direct or face-to-face interview with six police that came from six different departments. The researcher has forward few questions verbally during interview with these six police. The questions were followed:

- 1) How many times the interviewee improvising per year?
- 2) What are the factors that might influence them to improvisation?
- 3) Does improvisation increase their job performance?

From the questions above, 4 from 6 interviewees confessed that met improvisations situation more than three times per year, meanwhile the others two were improvise around once to twice per year. Meanwhile, second question indicates that all 6 interviewees have agreed that their job description as police has led them to improvise action. Other factors that listed were skills (3 interviewees), knowledge (4 interviewees) and time frame (3 interviewees). Others factors which also been chosen by police were teamwork (1 interviewee) and power (1 interviewee). For the last question, showed that all interviewees have agreed improvisation has positive influence onto their job performance. From this pilot test interview session, the researcher found that police in Sibul, Sarawak can be appropriate for this study. The others details for interview session such as venue, time and personal details of interviewee are attached in the Appendix C.

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was used to examine the face validity for this pilot test. The KMO value of times the interview improvised per year is .761, and the Bartlett's test is significant ($p = .000$), therefore the data is appropriate. The second question has indicated .682 and significant as appendix attached, which assumed as appropriate data for the factors analysis. For the last question,

KMO value has indicated that positive relationship between improvisation and job performance is 0.811, and the Bartlett's test is significant ($p = .000$), therefore this data is appropriate in face validity test. The details can be referred in Appendix C.

4.4 Validity Analysis

Factor Analysis

The factor analysis was a part of the SPSS package for 'reduction techniques'. The purpose of testing the factor analysis is different with other kind of tests that allow us to determine the strength or differences amongst variable. Sekaran (2003) suggested that researcher could reduce a high number of variables with factor analysis because it has capability to transform all the variables that have not linked to one another into a value set of variables group.

To examine the validity of the data, The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was used in the analysis. The Bartlett's Test of Sphericity is significant if the value is .05 or above. Table 4.1 showed that the KMO value of improvisation is 0.681, and the Bartlett's test is significant ($p = .000$), therefore the factor analysis is appropriate. Meanwhile, for variables skill and knowledge each indicate 0.793 and 0.644 and significant as appendix attached, this indicates both variable for skill and knowledge are appropriate. For variable time frame, table show that KMO with highest value of 0.804 and significant in Bartlett's test, it is appropriate. Nevertheless, the last variable, job description is less appropriate with KMO lesser than .5, which is 0.481 only with significant Bartlett's test of ($p = .000$).

4.1 Validity Test

Table 4.1 KMO

VARIABLE	KMO
Improvisation	0.681
Skill	0.793
Knowledge	0.644
Time Frame	0.804
Job Description	0.481

According to Thurstone (1947), the rotated solution revealed the presence of simple structure with both components showing a number of strong loadings and all variables loading substantially on only one component. The section B consists of the incidence of improvisation in policeman duties has explained only one component matrix extracted which explained a total of 26.68 per cent, with positive affect items loadings strongly on Component 1. The section C consists of three factors items measures, which are skill, knowledge, time frame and job description. The component matrix for skills factor indicates a total 36.78 per cent , with positive affect items loadings strongly on Component 1. Meanwhile, the knowledge factors showing the rotation of two-component solution explained a total of 42.71 per cent of the variance, with Component 1 contributing 23.73per cent and Component 2 contributing 18.98per cent. The interpretation of the two components was consistent with positive affect items loading strongly on Component 1 and 2. The component matrix for time frame factors explained only one component matrix extracted which indicates a total 32.94per cent , with positive affect items loadings strongly on Component 1. The items for job description showing that rotation of two-component solution explained a total of 41.96 per cent of the variance, with Component 1 contributing 21.76per cent and Component 2 contributing 20.2per cent. The interpretation of the two components was consistent with positive affect items loading strongly on

Component 1 and 2. The details for each item measures in every factors can be referred in Appendix E.

4.5 Normality, Reliability and Correlation Test

The data were analyzed by using both descriptive statistics (mean, percentages) and statistical test such as Cronbach's Alpha Test and correlation to test the reliability and normality. The purpose of this analysis is to address those following parts of questions as shown below. For those calculations for each statistic, it is done by using SPSS 20.0.

Reliability test

Based on Burn (2008), the reliability refers to the consistency, Zikmund (2010) and stability of the findings that enables to be replicated. Consistency Zikmund (2010) is the key to understanding the reliability. This test is used in the study because it's consistent to predict the future works patterns (Burn, 2008). For reliability test, the researcher uses Cronbach's Alpha Test.

Normality test

Based on Wikipedia (n.d) resource, normality tests in statistic are used to determine whether a data set is well-modeled by a normal distribution or not, or to compute how likely an underlying random variable is to be normally distributed. For normality test, researcher use Skewness and Kurtosis Test. The result shows that, all data are normal. So the analysis can be proceeding with correlation and regression. The result of the normality test can be seen at Appendix F.

Correlation Analysis

The correlation analysis is applied to explain the strength and direction of the linear relationship between two variables. Summarily, its' designed to determine whether there are a significant relationship or not between dependent variables: skills (hypothesis 1), knowledge (hypothesis 2), the time frame (hypothesis 3), and job description (hypothesis 4) with the independent variable: improvisation occurrences, by looking at Pearson correlation where the significant level: *p<0.05 and **p<0.01 will be chosen.

Table 4.2: Reliability, Correlation and Normality Statistic

Correlations							
	Mean	SD	1	2	3	4	5
Improvisation	4.238	0.408	(0.630)				
Skill	4.155	0.505	.356**	(0.786)			
Knowledge	4.283	0.392	.246**	.359**	(0.660)		
Time Frame	4.320	0.530	0.128	.451**	.228**	(0.842)	
Job_Description	4.314	0.311	0.310	.290**	.225**	.332**	(0.525)
Kurtosis			1.007	1.733	0.623	-0.392	0.763
Skewness			-0.551	-1.080	-0.764	-0.376	-0.473

Referring the table 4.2 reliability, correlation and normality statistics, Improvisation has a mean of 4.24 and stander deviation of 0.41 (M=4. 24, SD=0. 41). The cronbach's alpha for the improvisation is 0.630, which indicates that the items have relative consistency. While, skill indicates mean of 4.15 and stander deviation of 0.51 (M=4.15, SD=0.51) with the cronbach's alpha for the skill items is 0.786, which indicates that the items have relatively internal consistency. Knowledge represents mean of 4.30 and stander deviation of 0.40 (M=4.30, SD=0.40) and cronbach's alpha for the knowledge shows relatively internal consistency with value 0.660. Time frame has a mean of 4.32 and stander deviation of 0.53

($M=4.32$, $SD=0.53$) with cronbach's alpha for the time frame show relatively high internal consistency with value 0.8415. Finally, the job description has a mean of 4.31 and stander deviation of 0.31 ($M=4.31$, $SD=0.31$). The cronbach's alpha for the job description is 0.525, which indicates that the items have less relative consistency. According to Sekaran (2003), generally, 0.50 reliabilities value in Cronbach Alpha was still valid, however, the value being considered to be very poor.

The independent variable was represented by improvisation, it has a moderately skewed with $-.551$, moderate peak with 1.006 kurtosis. The skills variable as one of the independent variable is moderately skewed with -1.08 and higher peak with 1.733 kurtosis. Knowledge and time frame, which as well present independent variables, both of them approximately symmetric with $-.764$ skewness for knowledge and $-.376$ skewness for time frame, meanwhile knowledge approximately flatness with 0.623 kurtosis and time frame show negative flatness with $-.392$ kurtosis. Lastly, job descriptions variables show it has a moderately skewed with $-.473$, moderate peak with $.763$ kurtosis. Therefore, the assumption of normality is not violated. The histogram graph of skewness and kurtosis movement can be referred in Appendix G.

The table 4.2 showed that the relationship between improvisation as a dependent variable, while skill belongs to respondents as an independent variable is a positive weak and nonlinear, with a significant statistical correlation ($r=.356$, $p<0.01$). Meanwhile, the relationship between improvisation and level of knowledge of respondents indicate as positive weak and nonlinear, with a significant statistical correlation ($r=.246$, $p<0.01$). In terms of relationship improvisation and time frame is positive strongly weak and nonlinear, with a significant statistical correlation ($r=.128$, $p<0.06$). As for the relationship between

improvisation and respondents' job descriptive shows a positive weak and nonlinear, with a significant statistical correlation ($r=.310$, $p<0.01$)

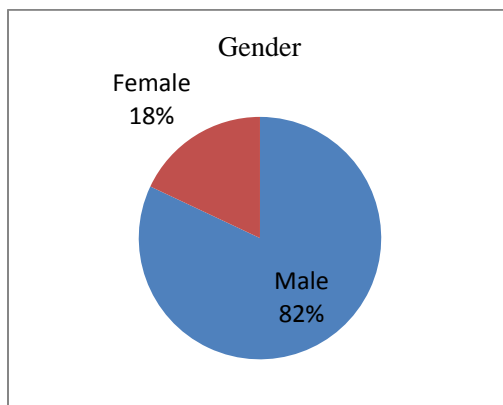
4.6 Descriptive Analysis of Respondents.

Referring to Sekaran (2003), descriptive analysis allowed the researcher to identify or overlook the variable of interest in a situation for understanding their characteristics that follow certain similar practices. Therefore, this section study encompasses several demographic subjects. In this part, there were 8 questions were asked, gender, age, education, marital status, number of children, rank level of position, years of working experience, and service department. In addition, the dependent variable such incidence of improvisation and independent variable such skill, knowledge, time frame, and job descriptions are included in this study as well. The summary of all demographic data been compressed in descriptive table in Appendix H. All descriptive analysis showed below:

Result: Demographic profile of the respondents

4.6.1.1 Gender

Figure 4.1 Gender



According to the pie chart 4.1, the researcher used descriptive test to test the frequencies and percentages of the data. From the survey, the major respondents were male, which total 178 respondents (82%) and the 39 were female (18%).

4.6.1.2 Age

Table 4.3 Age of Respondents

	Frequency	Valid Percentage (%)
25 and below	51	23.5
26-30	81	37.3
31-35	55	25.3
36-39	9	4.1
40 and above	21	9.7
Total	217	100

Most of the respondents' ages were 26-30 years old, 81 respondents (37.3%), the rest were 31-35 years old, 55 respondents (25.3%) 51 respondents are from 18 to 25 years old (23.5%), (9.7%) represents 21 respondents those ages are 40 years and above. The smallest group of age is between 36-39 years old police with the numbers of 9 respondents only.

4.6.1.3. Experience

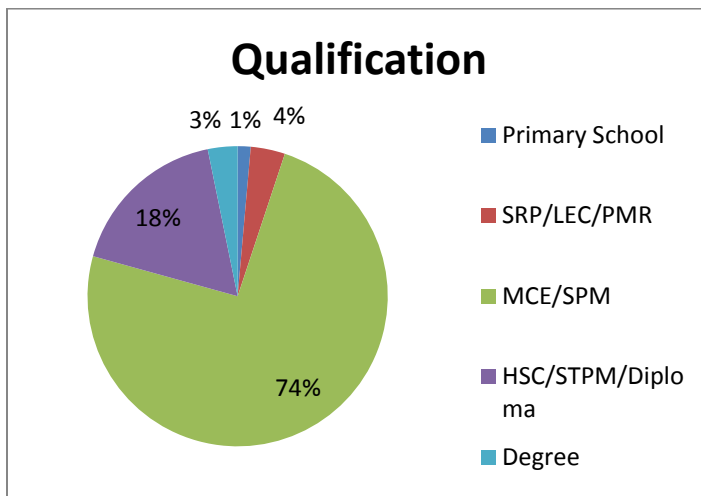
Table 4.4 Year of Services

	Frequency	Valid Percentage (%)
1-3 years	41	18.9
4-6 years	58	26.7
6-8 years	49	22.6
8-10 years	34	15.7
Above 10 years	35	16.1
Total	217	100

From all 217 respondents, the highest numbers of respondents are coming from those had working experience from four to six years, which represents of 58 police or 26.7%. The smallest group of respondents is those who had working experiences from 8-10 years of service, with 34 police (15.7%). The rest, which were 49 respondents, had worked for 6 to 8 years (22.6%). From the survey, the numbers for those who served from one to three years is forty-one police or belong to 18.9% and another 16.1% came from police who have serviced for ten years or above in Royal Malaysia Police.

4.6.1.4 Qualification

Figure 4.2 Qualifications of Respondents



For the qualification, most of them were passed from SPM level, which were 161 respondents (74.2%) and the rest were Standard 6, PMR, Diploma or STPM and Degree holder with 3 respondents (1.4%); Standard 6, 8 respondents (3.7%); SRP or PMR, (17.5%) or 38 respondents; Diploma and STPM holder, and lastly are 7 police or 3.2% are those categorized in Degree holder. No respondents from PhD holder and professional certificate.

Table 4.5 Marital Status

	Frequency	Valid Percentage (%)
Single	50	23
Married	166	76.5
Divorced	1	0.5
Total	217	100

Referring to the table as above, a large proportion of police in Sibul (76.5%) or 166 respondents are married, compared to the group of single police which representative of fifty respondents or (23%). The police with widower status are also involved in this case study by 0.5% or one respondent only.

4.6.1.6 Numbers of Children

Table 4.6 Numbers of Children

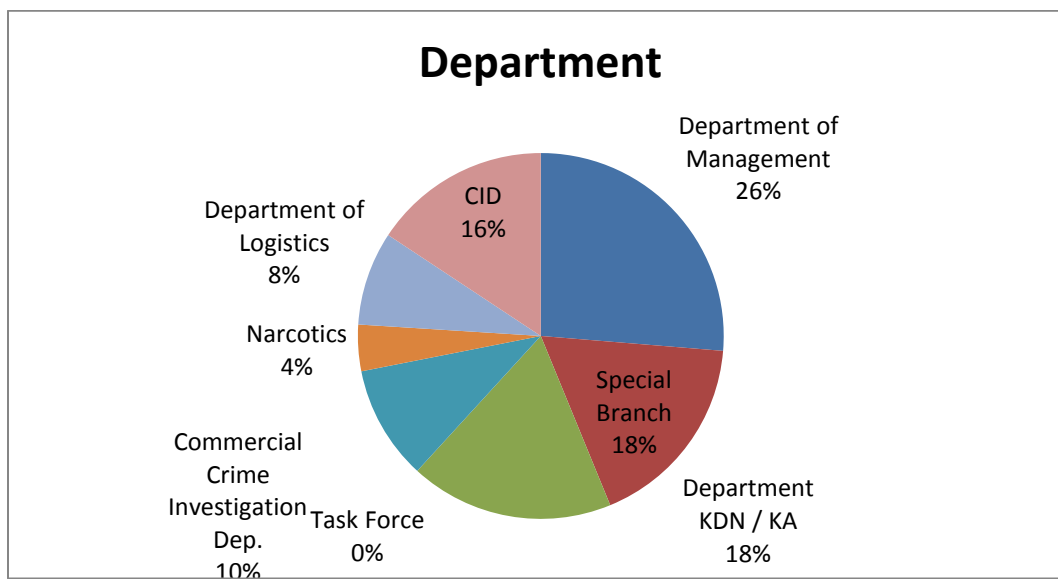
	Frequency	Valid Percentage (%)
None	64	29.5
1-2	78	35.9
3-4	57	26.3
5-6	17	7.8
7 and above	1	0.5
Total	217	100

Table 4.6 shows about 35.9% percent of the police have 1 to 2 children, and a study indicates that other group 26.3% or 57 respondents are having 3 to 4. The rest of the respondents being included in category of raising 5 to 6 children by 7.8% or equal to 17

respondents and those whom having 7 and above children is 0.5% or one respondent only. However, there are 64 respondents or 29.5 percent who do not have a child yet.

4.6.1.7 Department Service

Figure 4.3 Department Service



The pie chart above shows that all of the 217 respondents, 57 or 26.3% respondents were working in the department of management. Meanwhile, for Crime Investigation Department (CID) has 34 respondents or 15.7%, Logistics has 18 police or 8.3%, and 9 or 4.1% respondents were working at Narcotics. There are 22 police or 10.1% were working in the Commercial Crime Investigation Department, 39 or 18% police in the Department of KDN/KA and the rest of 38 or 17.5% respondents being categorized under Special Branch Department.

4.6.1.8 Ranks of Position

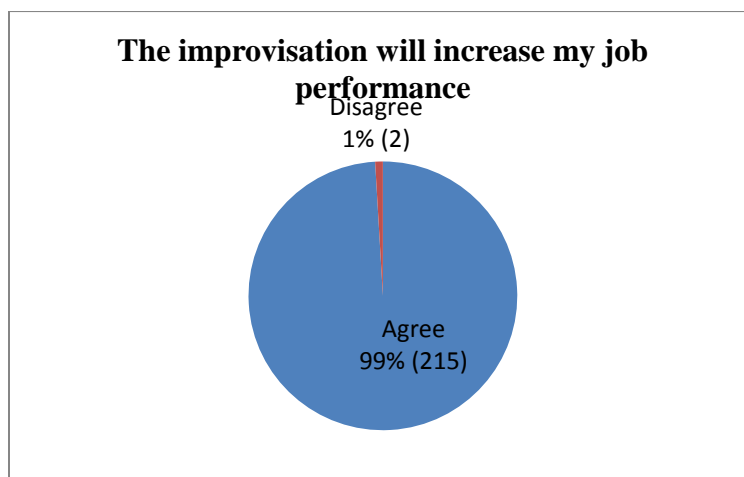
Table 4.7 Ranks of Position

	Frequency	Valid Percentage (%)
Constable/Lance Corporal/ Corporal	168	77.4
Sergeant/Sergeant Major/Sub-Insp.	32	14.7
Inspector/Assist. Superintendent	16	7.4
Superintendent	1	0.5
Total	217	100

The job description has major relatives with improvisation and decision maker. Thus, the study of demographic profiles regarding the level of ranks among police in Sibul, Sarawak is vital. There are 77.4% or 168 respondents came from constable, lance corporal and corporal position, while Sergeant or Sergeant Major stays on the second highest level of respondents which are 14.7% or 32 respondents. The last two groups are Inspector and Assistant Superintendents with 16 or 7.4% respondents and one Superintendent or 0.5%

4.6.1.9 The Relationship between Improvisation Occurrences and Job Performance

Figure 4.4 Improvisation Occurrences and Job Performance



The pie chart above shows that a majority of 215 from 217 respondents were agreed that improvisation will increase their job performances. Meanwhile, there were two respondents who denied that the existence of improvisation will enhance their performance in police professions. According to Daly, Grove, and Dorsch, and Fisk (2007), improvisation will increase the job performance, especially in the service sectors because services require the workers to meet finding points of customer satisfaction even though in unfamiliar situations. Thus, emergence with creativity and responding times in solving customer problem will enhance their work performance.

4.7 Hypotheses Testing

For this study of improvisation, the researcher used multiple regression to analyze the hypotheses and to evaluate in terms of its predictive power, over and above that offered by all the other Independent variables. This test process factor score by entering all the independent (or predictor) variables into the equation simultaneously. The result of multiple regression analysis determines can be seen in Table 4.8. The details can be referred in Appendix I.

*TABLE 4.8 REGRESSION ANALYSIS
FOR HYPOTHESIS 1 THROUGH TO 4*

Factors influence			
Improvisation	Variables	Hypothesis	Improvisation
Independent			0.301**
Variables	Skill	H1 _A	
	Knowledge	H2 _A	0.108**
	Time Frame	H3 _A	-0.113
	Job		0.231**
	Description	H4 _A	
Summary statistics	R2		0.438
	F		12.610
	P		<0.01

Notes: ** p<0.01; *0.05

4.8 DISCUSSION OF RESULT

Referring to table 4.8, the multiple regression analysis showed that the result of the relationship between all the independent variables- skills, knowledge, time frame, experience and job description and improvisation is significant. The result shows a total of 43.8% of the variance in improvisation is explained by four factors (skills, knowledge, time frame and job description), which is significant as indicated by the F-value of 12.610. However, the results are varied if it individually examined. The result suggests that a 1% change in skills leads to 30.1% increase in improvisation is a stronger factor in influencing improvisation occurrences. There is a significant and positive relationship between skills and improvisations, with a significant t-statistic ($t=4.065$, $p<0.01$). As a result, the hypothesis $H1_A$ assumed that skills affects improvisations among police in Sibul, Sarawak is accepted.

Furthermore, the result also suggests that a 1% change in knowledge leads to 10.8% increase in improvisations and this variable is the major factor in influencing improvisations. The relationship between knowledge and improvisations is significant and positive, with a significant t-statistic ($t=1.561$, $p<0.01$). Hence, the hypothesis $H2_A$ assumed that knowledge affect improvisation among the police is accepted.

Other results show 1% change in time frame leads to 11.3% decrease in improvisation. The retrograde relationship between time frame is an insignificant and has negative relationship, with a significant t-statistic ($t=-1.562$, $p>0.01$). So that, the hypothesis $H3_A$ assumed that time frame affects improvisation among employees is rejected. This result proved insignificant, therefore it could support previous researcher,

Shackle that argued that scarcity of time and resources are not the vital factors for an improviser to improvise since they (improviser) just react in any moment that appropriate (Shackle, 1972) .

Nevertheless, this job description result also has a big influence of improvisations. The results show 1% change in job descriptions leads to 23.1% increase in improvisation. The relationship between job description and improvisations is a significant and has a positive relationship, with a significant t-statistic ($t=3.318$ $p<0.01$). Hence, the hypothesis $H5_A$ assumed that job descriptions affect improvisations among police is accepted.

From this regression analysis, the researcher can determine the dimensions of skills, knowledge, time frame, and job description to detailing more regarding variance in improvisations. The results of regression analysis between these dimensions and improvisation can be seen from Appendix H.

4.9 Summary of Finding

The Discussion of the Hypotheses Results

This part illustrates the hypotheses result of the study that includes four hypotheses. The researcher concludes and discusses the results based on the findings and related them with previous researches.

HYPOTHESIS 1

H1o: There is no relationship between skills and improvisation among Sibul police.

H1A: There is a relationship between skills and improvisation among Sibul police.

Based on the results, the H1 is accepted and shows significant influences of skills towards

the incidence of improvisation among police in Sibul, Sarawak. According to Ribeiro, Coelho and Gomes (2011), the Human Resource Section (HRS) and organizational culture induces uniform expectations about workers' behavior and skills which also has a notable impact on improvisation behavior. Chase (1978) stated that, employees must be trained by employer to gain skills to improvise and also to invite customers in the improvisation process due to high contact systems between them. Therefore, this creates them feel that they have some control over the recovery outcome (Chang, 2006). According to previous researcher Wirtz (2008), the development of skill lead to improvisation occurrences and this skill can be harvested by providing training. Therefore, this study proves the significant relationship between skills and improvisation occurrences among Sibul polices.

HYPOTHESIS 2

H2o: There is no relationship between the knowledge and improvisation among Sibul police.

H2A: There is a relationship between the knowledge and improvisation among Sibul police.

Based on the results, the H2 is accepted and show significant influences of knowledge towards the incidence of improvisation among police in Sibul, Sarawak. The knowledge level being synonyms with one's education background, thus, in order for a person to attach with an improvisation, the improviser's education level was required to determine his or her knowledge resources which will influence his or her improvise action (Bednar, and Welch, 2012). Hence, the study has evidently proved that knowledge is able to influence incidence of improvisation among police in Sibul, Sarawak.

HYPOTHESIS 3

H3o: There is no relationship between time frame and improvisation among Sibul police.

H3A: There is a relationship between time frame and improvisation among Sibul police.

Based on the results, the H3A is rejected as it shows insignificant influences of time frame towards the incidence of improvisation among police in Sibul, Sarawak. Therefore, it could support previous researcher, Shackle that argued that scarcity of time and resources are not the vital factors for an improviser to improvise since they (improviser) just react in any moment that appropriate (Shackle, 1972) . Hence, the study proven that time frame is not able to influence incidence of improvisation among police in Sibul, Sarawak.

HYPOTHESIS 4

H4o: There is no relationship between job descriptions and improvisation among Sibul police.

H4A: There is a relationship between job descriptions and improvisation among Sibul police.

Based on the results, the H4 is accepted and show significant influences of job descriptions towards the incidence of improvisation among police in Sibul, Sarawak. As a decision maker, all managers who tied with his or her job description and responsibility have to deal with daily crisis through improvisation, in order for them to solving an unforeseen problem. The managers require giving responding acts for making decisions due to his or her position in an organization (Brady, 2011). Thus, the study evident that job description is able to influence incidence of improvisation among police in Sibul, Sarawak.

4.10 Conclusion

The research objectives as stated in the chapter 1 are as below:

- a) to investigate the correlation between knowledge, skill and improvisational
- b) to determine the relationship between time-frame and incidence of improvisation
- c) to examine the relationship between job description and improvisation

The researcher concludes that the research objectives as mentioned above are full filled the research objectives whereby in the first objective, the results show a significant result. Nevertheless, for second research objective, indicate insignificant amount for regression test.

From the result of finding above, job description has significant relationship through regression test and this could fulfill the third objectives in this research. Collectively all of the variables from the regression analysis show the relations with independent variable of improvisation.

Finally, the researcher argues there was unfavorable result that show insignificant (time frame) is because the questionnaires had been distributed to few department that not often attach with improvisation due to time constraint such as administrative and logistics department. This study has explored regarding improvisation perspectives amongst police in Sibul, Sarawak. To facilitate the understanding of readers, the researcher has provide the table of summary for all hypotheses as shown in Table 4.9.

Table 4.9: Hypothesis Discussion

	Hypothesis Multiple Regression Analysis	Analysis Results
H1	H1o: There is no relationship between skills and improvisation among Sibul police. H1A: There is a relationship between skills and improvisation among Sibul police.	H1o Rejected H1A Accepted
H2	H2o: There is no relationship between knowledge and improvisation among Sibul police. H2A: There is a relationship between knowledge and improvisation among Sibul police.	H2o Rejected H2A Accepted
H3	H3o: There is no relationship between time frame and improvisation among Sibul police. H3A: There is a relationship between time frame and improvisation among Sibul police.	H3o Accepted H3A Rejected
H4	H4o: There is no relationship between job description and improvisation among Sibul police. H4A: There is a relationship between job description and improvisation among Sibul police.	H4o Rejected H4A Accepted

CHAPTER FIVE

Conclusion and Recommendations

5.1 Introduction

An overview and a summary of findings which obtained from the Chapter 4 will be discussed in this last chapter. The conclusion and recommendations is important to be concluded in this study which referred from chapter four. The chapter five is focuses on reviewing few sections include limitation of the study, recommendation and suggestion for future research, research implication, and conclusion.

There are two categories in research implication; practical implication and academic implication. The sections for recommendations of research are based from the opinions of the researcher and the police in Sibul, Sarawak. The suggestions provided in this research study could beneficial to many parties, especially for decision makers because it is clearly explained the factors that drive to improvisation occurrences. Besides, this chapter will help reader to understand the implication and suggestion which could apply for the future study.

5.2 Limitation of the Study

There have several limitations that occurred during the research process period. First limitation is regarding to the main journal used by researchers. Because of limitation of focus respondent, researcher cannot take all the variables from the prior study in order to match it with the condition of the respondents.

The second is about the time constraints. This is because the researcher's respondents are PDRM police which one of organization under Ministry of Defense so there were lots of procedures that need to be completed and make the research process being delayed. Besides that, because of the method to conduct was via post, so it costs the researchers lots of time to wait for the responds and this cause the researchers to find other alternative to distribute the questionnaire such as via email and face to face in order to complete the research on time.

The last one is about the respondents itself. The researchers focused on one kind of respondents' group only, which police, so the result might be not wider and so specific. It makes the result can only be used on certain time and part only. Besides that, because of the total of respondents are only 217 and the research is distributed to all departments in PDRM at one district only, so the sample size of the data collection is not much as not all departments involving urgent matter in the task given, for an example Logistic and Administrative Department.

5.3 Recommendation for Future Study

After doing this research, the researcher found some recommendations that could be used for future study, such as about the consistency of the research on an improvisation in organizations of the Ministry of Defense in Malaysia. This is because currently, Malaysia had been shocked with urgent cases focus on the Ministry of Defense involvements such as broken national security in Lahad Datu, Sabah and tragedy of missing plane of Malaysia Airlines MH370 which closely link to improvisation aspect for making immediate decisions. Thus, in order to study on how these people (for example:

police and military) work with urgency matters or an unexpected situation and update the current perception and awareness of improvisation amongst them, the consistency research is a good idea. This is because the perception and awareness can be changed from time to time, like the relationship from the data result of the researcher and prior study, Shackle (1972) with same variables of time frame, nevertheless the result of the acceptance is different from others previous researcher.

Besides that, future study may choose a particular group of respondents that closely related in improvisation act as routines such as task force department, to get more interesting results from various types of test for the data process and finding. Even though it may cause lots of time, but still it will give more challenge and interesting result. The focus group should be particularly chosen rather than to allow involvement from all departments in one district only. This is because in some departments, their tasks might not involve or low involvement with urgency or unexpected matters (e.g. administrative department). Although, the profession of police is synonyms with improvisation, but still it can be questionable when the rank position or responsibility of duties is restraint. Therefore, future study should involve those stay in rank position that requires them to react immediately in making a judgment and decision. An improvisation skill could enhance by 'harvesting' the factors that have been suggested by the researcher through seminar, workshop, and training that could provide by management of organization.

5.4 Implications of the Research

This section able to guide some parties about few important matters that needs to be concern. Therefore, this part will demonstrate the division of research implication into two categories namely; managerial implication and academic implication.

5.4.1 Managerial and Practical Implication

Based on the findings of this research, an organization which serves to public and face unexpected situation such as police force, fire fighters, military and others organizations under Ministry of Defence are involved in improvisation occurrences. Therefore, this study can be future reference for all organization which requires to take urgent decisions in unexpected situations by using skill, knowledge, time frame and job description, and this could beneficial to decision makers.

5.4.2 Academic Implication

This study possibly contributes to the existing knowledge especially related with the topic of strategic management and decision making. This study also provides many evidences which may increase our understanding on improvisation occurrences among police. There are many research has been done previously in improvisation factors in service organizations, and this study might useful in providing information for future researcher. This study also will help the readers to enhance their understanding and knowledge in improvisation topic. Furthermore, this study will increase the collection of studies about improvisation involved in organizations under Ministry of Defense due to the lack of studies about this topic in those sectors.

5.5 Conclusion

This study has determined a few elements that influence to improvisation incident. The research was conducted in Sibul, Sarawak found that police who attach with improvisation and lead to immediate actions agree it's really important for them to improve the improvisation skill.

As overall conclusion, this research is done with modest result where most research objectives are answered and support the prior studies. The researcher also found that, a study on improvisation that involving organizations under the Ministry of Defense in Malaysia are still new aspect to discuss. Based on the results, few variables which being known in the previous literature study as strength item measure are weak in this research like time frame. According to Shackle (1972), some action for improvise not totally relies because of urgency or time constraints. Nevertheless, opinions from pilot test result also noted that awareness of the improvisation issues amongst police in Sibul, has increased. Meanwhile, the skills being highlighted as a stronger element compared with others variables, thus, the researcher suggests that the majority of polices think their skills give the positive impact to an improvisation during duties in Sibul, Sarawak.

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APPENDIX A



**UNIVERSITI UTARA
MALAYSIA COLLEGE
OF BUSINESS**

QUESTIONNAIRE

Dear Respondents,

I am currently a Master of Science Management student at the University Utara Malaysia conducting an academic research. The purpose of the study is to investigate Improvisation among Policemen in Sibul, Sarawak'.

Your help in completing and returning this survey is central to the success of this research project and would be highly appreciated. Your response is very important to this study and will be kept strictly confidential. Please return the completed questionnaire at your earliest convenience. Thank you for your cooperation.

Kind regards,

FAZILAH ALIMAN
MSc. Management
Universiti Utara Malaysia (UUM)

SECTION A: BACKGROUND OF RESPONDENTS

Please tick (/) the most appropriate answer.

1. Gender			
Male		Female	

2. Age					
25 and below		26-30		31-35	
36-39		40 and above			

3. Education					
Primary School		SRP/ LEC/ PMR		MCE/ SPM	
HSC/ STPM/ Diploma		Degree			
Professional Cert.		Master/PHD			

4. Marital Status			
Single		Married	
Widow/Widower		Divorced	

5. Number of Children			
1-2		3-4	
5-6		7 and above	

6. Ranks Level of Position	
Constable (KONST)/ Lance Corporal (L / ERC)/ Corporal (ERC)	
Sergeant (Sgt)/ Sergeant Major (SM)/ Sub-Inspector (SI)	
Inspector (INSP)/ Chief Inspector (C / INSP)/ Assistant Superintendent of Police (ASP)/ Deputy Superintendent Police (DSP)	
Superintendent of Police (SUPT.)/ Assistant Commissioner of Police (ACP)/ Senior Assistant Commissioner of Police (SAC)	
Inspector General of Police (IG)/ Deputy Inspector General of Police (DIG)/ Commissioner Police (CP)/ Deputy Commissioner of Police (DCP)	

7. Years of service					
1-3 Years		4-6 Years		6-8 Years	
8-10 years		10 years and above			

8. Department of Service							
Department of Management		Special Branch		Department KDN / KA		Task Force	
Commercial Crime Investigation Dep.		Narcotics		Department of Logistics		CID	

SECTION B: THE INCIDENCE OF IMPROVISATION IN POLICE DUTIES

To what extend do you agree or disagree that the following statements describes the factors which lead improvisation in your daily works.

- 5- Strongly Agree
- 4- Agree
- 3- Neutral
- 2- Disagree
- 1-Strongly Disagree

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The gap between plan and execution was taken in a short period	5	4	3	2	1
2. I will figure out action as I go along the task given	5	4	3	2	1
3. I was improvised in carrying out this action	5	4	3	2	1
4. I often act spontaneously in completing my task	5	4	3	2	1
5. I used my own creativity for solving the problematic in task but still under the works' procedure and regulations	5	4	3	2	1

SECTION C: THE FACTORS THAT INFLUENCING IMPROVISATION IN POLICE DUTIES

To what extend do you agree or disagree that the following statements describes the factors which lead improvisation in your daily works.

- 5- Strongly Agree
- 4- Agree
- 3- Neutral
- 2- Disagree
- 1-Strongly Disagree

(A) – SKILL	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. I have capability of taking urgent decisions on something which was not planned or expected.	5	4	3	2	1
2. In my organization, I quickly find solutions to problems and challenges that may rise.	5	4	3	2	1
3. I often need to take decisions on issues which were unforeseen	5	4	3	2	1

(A)– SKILL	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
4. I have a written plan before execute	5	4	3	2	1
5. I can be a creative person when making decision	5	4	3	2	1

(B)– KNOWLEDGE	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. I solve problem promptly based on the knowledge I have.	5	4	3	2	1
2. I have knowledge about the various processes and activities are performed in others department	5	4	3	2	1
3. My knowledge help me to do quick plan and execution.	5	4	3	2	1
4. Sharing knowledge from other teams who working in a similar area will cultivate an improvisation	5	4	3	2	1
5. Knowledge have influenced improvisation in my duties	5	4	3	2	1

(C)– TIME FRAME	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. In average, my planning time-scale is below a year.	5	4	3	2	1
2. I don't need long time to act right after the plan is set.	5	4	3	2	1
3. I frequently make quick decisions.	5	4	3	2	1
4. Times frame have influenced improvisation in my duties.	5	4	3	2	1

(D)– JOB DESCRIPTION	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. All the departments in my organization follow HR department guidelines.	5	4	3	2	1
2. When deciding upon matters that concern me, my superiors seek my opinion.	5	4	3	2	1
3. Although there are specific and formal management procedures in job, policeman is allow customizing the task.	5	4	3	2	1
4. My job requires me to reflect immediately upon unexpected situation during work.	5	4	3	2	1
5. The improvisation helps me to prepare myself to face unexpected situations that I may experience while performing my job responsibilities.	5	4	3	2	1

SECTION D: AN IMPROVISATION AND JOB PERFORMANCE

Please tick (/) the most appropriate answer.

YES

NO

The improvisation will increase my job performance

()

()

If no, please specify

THANK YOU, YOUR ASSISTANCE IS GREATLY APPRECIATED

APPENDIX B

1. Jobs or Duties of Royal Malaysia Police

Section 20 of the Police Act lists the duties of a police officer as follows: -

- Catch all the people who he is authorized by law to be arrested;
- security intelligence process;
- prosecution;
- provide assistance in the implementation of any law relating to revenue, exercise, sanitation, quarantine, immigration and registration;
- provide assistance in maintaining order in ports and airports of Malaysia, and in enforcing the rules of maritime and port;
- perform summons, subpoenas, warrants, orders to imprison and other processes lawfully issued by any competent authority;
- displaying information;
- protect property unclaimed / lost and looking for the owner;
- seize animals that roam and place it in the public enclosures;
- provide assistance in protecting life and property;
- protect public property from loss or damage;
- attend criminal court and if ruled by a special civil court and
- keep order in it and
- escort and guard prisoners and other persons in police custody.

Section 21 also is the duty to regulate, control and maintain traffic on public roads.

2. Study Research Location

Map of Sibul, Sarawak



APPENDIX C

1. Details of Pilot Test : Face-to Face Interview at Sibul, Sarawak.

Date: 6th & 7th February 2014

Venue: Balai Polis Sentral Sibul, Balai Polis Sibul Jaya, Balai Polis Sg. Merah, Balai Polis Lanang, IPD Sibul.

1st Interviewee: Insp. Mohd Idzam B. Abdul Rahim – Jab. Trafik at Balai Polis Sg. Merah

2nd Interviewee: L/Kpl Amir B. Ahmad – Jab. Siasatan Jenayah at IPD Sibul

3rd Interviewee: Sjn. Awang B. Hamid – Jab. Jenayah Komersial at Balai Polis Sentral

4th Interviewee: Sjn. Mejar Muralli - Jab. Jenayah Komersial at Balai Polis Sibuljaya

5th Interviewee: Insp. Ismady B. Dyat – Jab. Logistik at IPD Sibul

6th Interviewee: Sjn. Fairuz B. Hidayat – Jab. Siasatan Jenayah at Balai Polis Lanang

2. Face Validity Test

Question 1

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.761
	Approx. Chi-Square	288.840
Bartlett's Test of Sphericity	Df	10
	Sig.	.000

Component Matrix^a

	Component
	1
1.C	0.790
1.B	0.784
1.A	0.722

Extraction Method:
Principal Component
Analysis.

a. 1 components
extracted.

Question 2

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.688
	Approx. Chi-Square	129.780
Bartlett's Test of Sphericity	Df	10
	Sig.	.000

Component Matrix^a

	Component
	1
2.C	.760
2.D	.732
2.A	.655
2.B	.536
2.E	.688

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Question 3

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.811
	Approx. Chi-Square	348.520
Bartlett's Test of Sphericity	Df	10
	Sig.	.000

Component Matrix^a

	Component
	1
3.B	0.869
3.A	0.838

Extraction Method:
Principal Component
Analysis.

a. 1 components
extracted.

Descriptive Table for Demographic**Table 4.3.1.1****Sample Respondents Profile**

	Category	Frequency	Valid Percentage (%)
Gender	Male	178	82
	Female	38	18
	25 and below	51	23.5
	26-30	81	37.3
	31-35	55	25.3
	36-39	9	4.1
	40 and above	21	9.7
Qualifications	Primary School	3	1.4
	SRP/LEC/PMR	8	3.7
	MCE/SPM	161	74.2
	HSC/STPM/Diploma	38	17.5
	Degree	7	3.2
Marital Status	Single	50	23
	Married	166	76.5
	Divorced	1	0.5
Number of Children	None	64	29.5
	1-2	78	35.9
	3-4	57	26.3
	5-6	17	7.8
	7 and above	1	0.5
Ranks Level of	Constable/LanceCorporal/ Corporal	168	77.4

Position

	Sergeant/Sergeant Major/Sub-Insp.	32	14.7
	Inspector/Assist.Superintendent	16	7.4
	Superintendent	1	0.5
<hr/>			
Years of services	1-3 years	41	18.9
	4-6 years	58	26.7
	6-8 years	49	22.6
	8-10 years	34	15.7
	Above 10 years	35	16.1
<hr/>			
Department of Services	Department of Management	57	26.3
	Special Branch	38	17.5
	Department KDN / KA	39	18
	Task Force	0	0
	Commercial Crime Investigation Dep.	22	10.1
	Narcotics	9	4.1
	Department of Logistics	18	8.3
	CID	34	15.7
<hr/>			

Factor Analysis

- Factor Analysis for DV

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.681
	Approx. Chi-Square	129.650
Bartlett's Test of Sphericity	Df	10
	Sig.	.000

Component Matrix^a

	Component
	1
B.3	.759
B.4	.718
B.5	.660
B.2	.531
B.1	

Extraction Method:
Principal Component
Analysis.

a. 1 components
extracted.

- Factor Analysis for IV -Skill

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.793
	Approx. Chi-Square	288.840
Bartlett's Test of Sphericity	Df	10
	Sig.	.000

Component Matrix^a

	Component
	1
C.a.1	.793
C.a.5	.786
C.a.2	.732
C.a.4	.686
C.a.3	.681

Extraction Method:

Principal Component

Analysis.

a. 1 components

extracted.

- Factor Analysis for IV -Knowledge

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.644
	Approx. Chi-Square	241.597
Bartlett's Test of Sphericity	Df	10
	Sig.	.000

Component Matrix^a

	Component	
	1	2
C.b.1	.853	
C.b.3	.794	
C.b.4	.734	
C.b.2		
C.b.5		.837

Extraction Method: Principal

Component Analysis.

a. 2 components extracted.

Rotated Component Matrix^a

	Component	
	1	2
C.b.1	.892	
C.b.3	.886	
C.b.4	.595	.448
C.b.5		.903
C.b.2		.547

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

- Factor Analysis for IV –Time Frame

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.804
	Approx. Chi-Square	340.501
Bartlett's Test of Sphericity	Df	6
	Sig.	.000

Component Matrix^a

	Component
	1
C.c.2	.859
C.c.1	.818
C.c.3	.811
C.c.4	.806

Extraction Method:
Principal Component
Analysis.
a. 1 components
extracted.

- Factor Analysis for IV –Job Description

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.481
	Approx. Chi-Square	139.803
Bartlett's Test of Sphericity	Df	10
	Sig.	.000

Component Matrix^a

	Component	
	1	2
C.e.5	.761	
C.e.2	.685	
C.e.3	.674	-.554
C.e.4		.715
C.e.1		.631

Extraction Method: Principal
Component Analysis.

Rotated Component Matrix^a

	Component	
	1	2
C.e.3	.858	
C.e.5	.813	
C.e.2	.505	.505
C.e.4		.787
C.e.1		.728

Extraction Method: Principal
Component Analysis.

Rotation Method: Varimax with Kaiser
Normalization.

a. Rotation converged in 3 iterations.

Normality Test**2. Table 4.2.2 Data frequencies for part II for perception**

1. Improvisation

	Strongly Disagree		Disagree		Neither Agree or Disagree		Agree		Strongly Agree	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
The gap between plan and execution was taken in a short period	0	0	0	0	27	12.4	141	65	49	22.6
I will figure out action as I go along the task given	0	0	0	0	20	9.2	112	51.6	85	39.2
I was improvised in carrying out this action	0	0	0	0	20	9.2	131	60.4	66	30.4
I often act spontaneously in completing my task	1	0.5	5	2.3	25	11.5	106	48.8	80	36.9
I used my own creativity for solving the problematic in task but still under the works' procedure and regulations	1	0.5	0	0	11	5.1	97	44.7	97	44.7

2. Skill Factor

	Strongly Disagree		Disagree		Neither Agree or Disagree		Agree		Strongly Agree	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
I am capable of taking urgent decisions on something which was not planned or expected.	0	0	3	1.4	21	9.7	133	61.3	60	27.6
In my organization, I quickly find solutions to problems and challenges that may rise.	0	0	1	0.5	21	9.7	103	47.5	92	42.4
I often need to take decisions on issues which were unforeseen	1	0.5	6	2.8	38	17.5	128	59	44	20.3
I have a written plan before execute	0	0	5	2.3	27	12.4	123	56.7	62	28.6
I can be a creative person when making decision	1	0.5	3	1.4	20	9.2	114	52.5	79	36.4

3. Knowledge Factor

	Strongly Disagree		Disagree		Neither Agree or Disagree		Agree		Strongly Agree	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
I solve problem promptly based on the knowledge I have.	0	0	0	0	12	5.5	117	53.9	88	40.6
I have knowledge about the various processes and activities are performed in others department	1	0.5	0	0	39	18	127	58.5	50	23
My knowledge help me to do quick plan and execution.	0	0	0	0	13	6	113	52.1	91	41.9
Sharing knowledge from other teams who working in a similar area will cultivate an improvisation	0	0	0	0	11	5.1	105	48.4	101	46.5
Knowledge have influenced improvisation in my duties	0	0	0	0	15	6.9	132	60.8	70	32.3

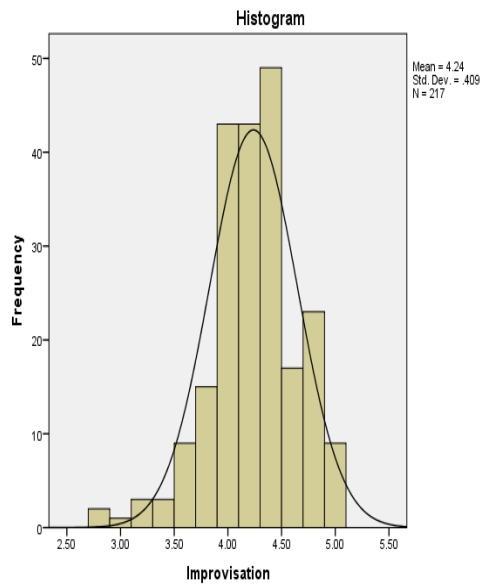
4. Time Frame

	Strongly Disagree		Disagree		Neither Agree or Disagree		Agree		Strongly Agree	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
In average, my planning time-scale is below a year.	0	0	0	0	13	6	118	54.4	86	39.6
I don't need long time to act right after the plan is set.	0	0	1	0.5	22	10.1	93	42.9	101	46.5
I frequently make quick decisions.	0	0	1	0.5	26	12	109	50.2	81	37.7
Times frame have influenced improvisation in my duties.	0	0	0	0	19	8.8	104	47.9	94	43.3

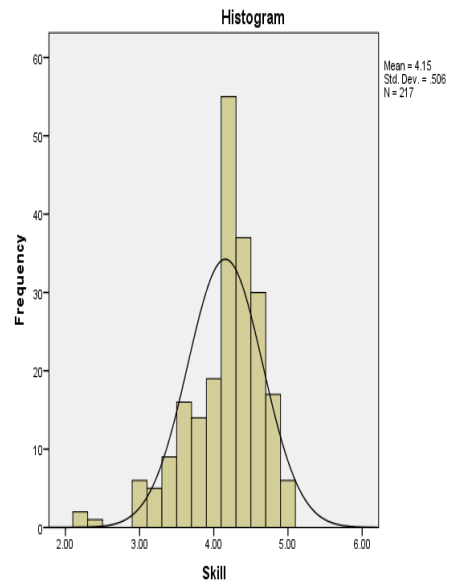
5. Jobs Description

	Strongly Disagree		Disagree		Neither Agree or Disagree		Agree		Strongly Agree	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
All the departments in my organization follow HR department guidelines.	0	0	0	0	5	2.3	159	73.3	53	24.4
When deciding upon matters that concern me, my superiors seek my opinion.	1	0.5	0	0	31	14.3	143	65.9	42	19.4
Although there are specific and formal management procedures in job, policeman is allow customizing the task.	0	0	0	0	6	2.8	92	42.4	119	54.8
My job requires me to reflect immediately upon unexpected situation during work.	0	0	0	0	3	1.4	166	76.5	48	22.1
The improvisation helps me to prepare myself to face unexpected situations that I may experience while performing my job responsibilities.	0	0	1	0.5	4	1.8	79	36.4	133	61.3

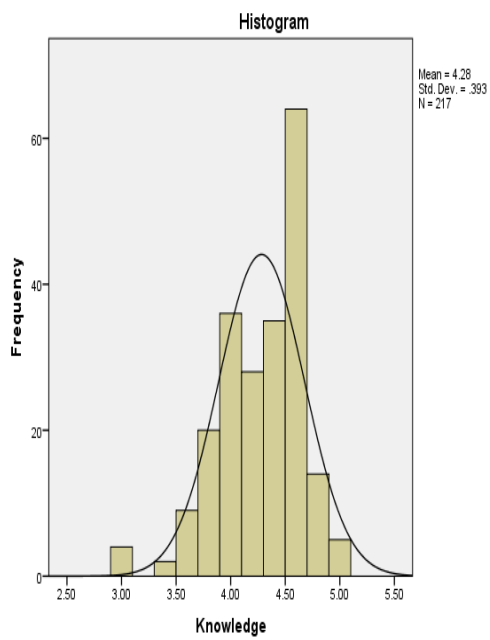
Histogram 4.1



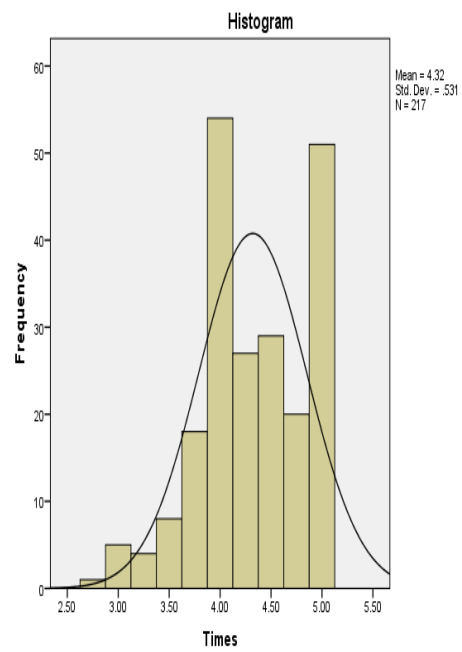
Histogram 4.2



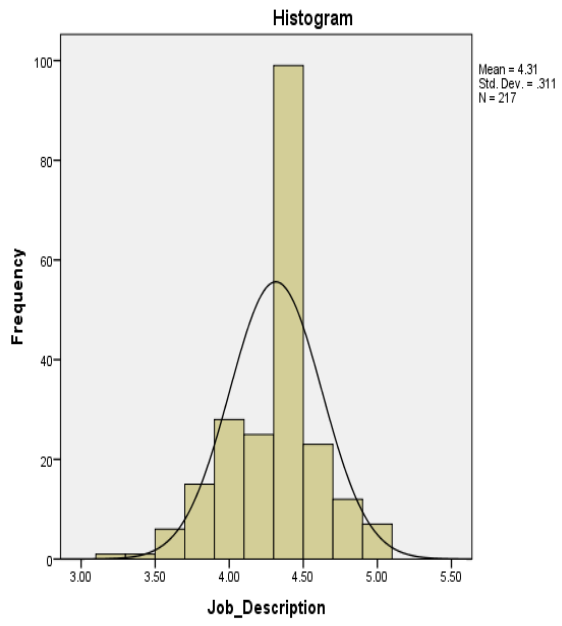
Histogram 4.3



Histogram 4.4



Histogram 4.5



Distribution of Data

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
B.1	217	3	5	4.1014	0.5844	-0.016	0.165	-0.116	0.329
B.2	217	3	5	4.2995	0.62926	-0.332	0.165	-0.662	0.329
B.3	217	3	5	4.212	0.59414	-0.102	0.165	-0.411	0.329
B.4	217	1	5	4.1935	0.76337	-0.91	0.165	1.226	0.329
B.5	217	1	5	4.3825	0.62825	-0.96	0.165	2.687	0.329
C.a.1	217	2	5	4.1521	0.63822	-0.466	0.165	0.757	0.329
C.a.2	217	2	5	4.318	0.66339	-0.555	0.165	-0.26	0.329
C.a.3	217	1	5	3.9585	0.72848	-0.661	0.165	1.162	0.329
C.a.4	217	2	5	4.1152	0.70092	-0.57	0.165	0.505	0.329
C.a.5	217	1	5	4.2304	0.70867	-0.914	0.165	1.808	0.329
C.b.1	217	3	5	4.3502	0.58287	-0.246	0.165	-0.678	0.329
C.b.2	217	1	5	4.0369	0.67256	-0.412	0.165	0.986	0.329
C.b.3	217	3	5	4.3594	0.59303	-0.313	0.165	-0.671	0.329
C.b.4	217	3	5	4.4147	0.58797	-0.423	0.165	-0.691	0.329
C.b.5	217	3	5	4.2535	0.57357	-0.064	0.165	-0.433	0.329
C.c.1	217	3	5	4.3364	0.58706	-0.24	0.165	-0.651	0.329
C.c.2	217	2	5	4.3548	0.67932	-0.668	0.165	-0.274	0.329
C.c.3	217	2	5	4.2442	0.67377	-0.428	0.165	-0.398	0.329
C.c.4	217	3	5	4.3456	0.63493	-0.443	0.165	-0.669	0.329
C.e.1	217	3	5	4.2212	0.46836	0.646	0.165	0.024	0.329
C.e.2	217	1	5	4.0369	0.61503	-0.503	0.165	2.182	0.329
C.e.3	217	3	5	4.5207	0.55343	-0.579	0.165	-0.752	0.329
C.e.4	217	3	5	4.2074	0.43921	0.945	0.165	0.236	0.329

C.e.5	217	2	5	4.5853	0.55558	-1.078	0.165	1.111	0.329
Valid N (listwise)	217								

Table Regression between Improvisation And Skills, Knowledge, Times, Experience And Job Description.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.438 ^a	.192	.177	.37063

5. Predictors: (Constant), skills, knowledge, times, experience and job descriptions

ANOVAa

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	6.929	4	1.732	12.610	.000 ^b
1 Residual	29.122	212	.137		
Total	36.050	216			

a. Dependent Variable: Improvisation

b. Predictors: (Constant), skills, knowledge, times, experience and job descriptions

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.778	.410		4.336	.000
	Skill	.241	.059	.298	4.087	.000
	Knowledge	.116	.070	.111	1.666	.097
	Times	-.085	.055	-.110	-1.549	.123
	Job_Description	.308	.088	.235	3.513	.001

Correlations

		Improvisation	Skill	Knowledge	Times	Job_Description
Improvisation	Pearson Correlation	1	.356**	.246**	.128	.310**
	Sig. (2-tailed)		.000	.000	.061	.000
	Sum of Squares and Cross-products	36.050	15.890	8.520	5.974	8.503
	Covariance	.167	.074	.039	.028	.039
	N	217	217	217	217	217
Skill	Pearson Correlation	.356**	1	.359**	.451**	.290**
	Sig. (2-tailed)	.000		.000	.000	.000
	Sum of Squares and Cross-products	15.890	55.197	15.373	26.139	9.840
	Covariance	.074	.256	.071	.121	.046

	N	217	217	217	217	217
	Pearson Correlation	.246**	.359**	1	.228**	.225**
	Sig. (2-tailed)	.000	.000		.001	.001
Knowledge	Sum of Squares and Cross-products	8.520	15.373	33.307	10.285	5.943
	Covariance	.039	.071	.154	.048	.028
	N	217	217	217	217	217
	Pearson Correlation	.128	.451**	.228**	1	.332**
	Sig. (2-tailed)	.061	.000	.001		.000
Times	Sum of Squares and Cross-products	5.974	26.139	10.285	60.866	11.857
	Covariance	.028	.121	.048	.282	.055
	N	217	217	217	217	217
	Pearson Correlation	.310**	.290**	.225**	.332**	1
	Sig. (2-tailed)	.000	.000	.001	.000	
Job_Description	Sum of Squares and Cross-products	8.503	9.840	5.943	11.857	20.926
	Covariance	.039	.046	.028	.055	.097
	N	217	217	217	217	217

** . Correlation is significant at the 0.01 level (2-tailed).