

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 Sibu, 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 Sibu, 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 Sibu, 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 Sibu, 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, faktor-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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SIGNATURE

TABLE OF CONTENTS

CONTENTS	PAGE
Title Page	I
Permission to Use	ii
Acknowledgement	iii
Disclaimer	iv
Abstract	v
Abstrak	vi
Table of Contents	vii
List of Tables	xi
List of Figures	xi
Chapter One: Introduction	
1.1 Background of the Study	1
1.2 Problem Statement	9
1.3 Research Questions	11
1.4 Research Objectives	11
1.5 Significance of Study	11
1.6 Scope and Limitations of the Study	12
1.7 Organization of the Thesis	12

Chapter Two: Literature Review

2.1 Introduction	14
2.2 Theoretical Underpinnings	14
2.3 Improvisation	16
2.4 Factors of Improvisation - Skills	27
2.5 Factors of Improvisation - Knowledge	32
2.6 Factors of Improvisation – Times Frame	36
2.7 Factors of Improvisation – Job Descriptions	42
2.8 Conclusion of Chapter 2	47

Chapter Three: Research Methodology

3.1 Introduction	48
3.2 Research Framework	48
3.3 Hypothesis and Proposition Development	49
3.4 Research Design	49
3.5 Population and Sampling	51
3.6 Instrument and Measurement	52
3.6.1-Demographic Background	53
3.6.2-Incidence of Improvisation in Police Duties	53
3.6.3-The Factors that Influencing improvisation during Duties	53
3.6.5-An Improvisation and Job Performance	54
3.7 Analysis	54
3.7.1- Reliability Analysis	54
3.8 Conclusion of Chapter 3	55

Chapter Four: Findings

4.1 Introduction	56
4.2 Response Rate	56
4.3 Pilot Test	56
4.4 Validity Analysis –Factor Analysis	58
4.5 Normality, Realibity and Correlation Test	60
4.6 Descriptive Analysis of Respondents.	63
4.7 Hypotheses Testing	69
4.8 Discussion of Result	70
4.9 Summary of Findings and Discussion of Hypotheses Result	71
4.10 Conclusion	74

Chapter Five: Discussions and Recommendations

5.1 Introduction	76
5.2 Limitation of the Study	76
5.3 Recommendations	77
5.4 Implication of the Study	79
5.5 Conclusion of the Study	80

Appendix A	81-86
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Appendix B	87-88
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Appendix C	89-109
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Reference	110-120
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LIST OF TABLES

TABLES	PAGE
Table 4.1: Validity Test – KMO Table	59
Table 4.2: Reliability, Correlation and Normality Statistic	61
Table 4.3: Respondents' Ages Table	64
Table 4.4: Years of Service Table	64
Table 4.5: Table of Respondents' Marital Status	66
Table 4.6: Table of Respondents' Numbers of Child	66
Table 4.7: Table of Respondents' Ranks Position	68
Table 4.8: Table of Regression Analysis –Hypotheses Testing	65
Table 4.9: Hypothesis Discussions	75

LIST OF FIGURES

Figures 3.1 : Theoretical Framework	48
Figures 4.1: Pie Chart for Gender	63
Figures 4.2 : Pie Chart of Respondents' Qualifications	65
Figures 4.3 : Pie Chart of Respondents' Department Services	67
Figures 4.4 : Pie Chart for Relationship between Improvisation Occurrences and Job Performance	68

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

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REFERENCE

Aaby, N. and Slater, S.F. (1989) Management influences on export performance: A review of the empirical literature 1978-88, *International Marketing Review*, 6 (4), 7-26.

Abdulla, J., Djebarni, R., and Mellahi, K. (2010) Determinants of job satisfaction in the UAE: A case study of the Dubai police, (40)(1), pp.126-146.

ACPO (Association Chief Police Officer, 2003) Manual of Guidance on Keeping the Peace. Bramshill: Centrex.

Akgun, A.E. and Lynn, G.S. (2002) New product development team improvisation and speed-to-market: an extended model. *European Journal of Innovation Management*, 5 (3), 117-29.

AL- Khater, K. and Naser, K. (2003) Users' perception of corporate social responsibility and accountability: evidence from an emerging economy. *Managerial Auditing Journal* 18 (6/7), 538- 548.

Alvaro, E., Luis, G.J., Manuel, D.O., and Jorge, P. (2009) The World Bank's Malaysia Investment Climate Assessment. *Singapore Economic Review* 54, 335-366.

Atkinson, R. (1999) Project management: cost, time, and quality, two best guesses and a phenomenon, it's time to accept other success criteria. *International Journal of Project Management*, 17 (6), 337-42.

Baker, T., Miner, S. and Eesley, D.T. (2003) Improvising firms: bricolage, account giving and improvisational competencies in the founding process. *Research Policy*, 32, 255-76.

Bakken, B.E. (2008) On improving dynamic decision-making: implications from multiple-process cognitive theory, *Systems Research and Behavioral Science*, 25 (4), 493-501.

Barret, F.J. (1998) Coda: Creativity and improvisation in organizations: implications for organizational learning. *Organization Service*, 9 (5), 605-622.

Bastien, D.T. and Hostager, T.J. (1988) Jazz as a process of organizational innovation. *Communication Research*, 15 (5), 582-602.

Bateson, G. (1972) Steps to an Ecology of Mind, Ballantine, New York, NY.

Bednar, P.M., and Welch, C. (2012) Critical systemic thinking as a

foundation for information systems research practice. *Journal of Information*, 10 (3), 144-155.

Beevor, A. (1999), *Stalingrad*, Penguin, London.

Bigley, G. and Roberts, K. (2001) The incident command system: high reliability organizing for complex and volatile task environments. *Academy of Management Journal*, 44 (6), 1281-99.

Brady, M. (2011) Improvisation versus rigid command and control at Stalingrad. *Journal of Management History*, 17 (1), 27-49.

Brown, J.S. and Duguid, P. (1991) Organizational learning and communities-of-practices: toward a unified view of working, learning and innovation. *Organization Science*, 2 (1), 40-57.

Brown, S.L. and Eisenhardt, K.M. (1997) The art of continuous change: linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Administrative Science Quarterly*, 42, 1-3.

Brown, S.L. and Eisenhardt, K.M. (1998) *Competing on the Edge: Strategy as Structured Chaos*, Harvard Business School Press, Boston, MA.

Burns K., Duffett M., Kho M., Meade M., Adhikari N., Sinuff T., et al. (2008) A guide to the design and conduct of self administered survey of clinicians. *CMAJ* 179:245–52.

Campbell, C.A. (1992) A decision theory model for entrepreneurial acts. *Entrepreneurship Theory and Practice*, Vol. 17 No. 1, Pp. 21-7. Available at: Emerald Insight Database. [Accessed 5.3.2012]

Canfield, J. and Miller, J. (1998) *Heart at Work: Stories and Strategies for Building Self-esteem and Re-awakening the Soul at Work*, Crawfordsville, IN: McGraw-Hill.

Cavusgil, S.T. and Zou, S. (1994) Marketing strategy-performance relationship: An investigation of the empirical link in export market ventures, *Journal of Marketing*, 58 (1), 1-21.

Chang, C.C. (2006) When service fails: the role of the salesperson and the customer. *Psychology and Marketing*, 23 (3), 203-24.

Chase, R.B. (1978) Where does the customer fit in a service operation?, *Harvard Business Review*, November (December), 137-42.

Cheetham, G. and Chivers, G. (2000) A new look at competent professional practice. *Journal of European Industrial Training*, 24 (7), 374-383.

Chin, G. (2004) Agile Project Management: How to Succeed in the Face of Changing Project Requirements, *American Management Association*, New York, NY.

Christmann A., Aelstb, S. V. (2006) Robust estimation of Cronbach's alpha. *Journal of Multivariate Analysis* 97.

Chuikov, V. (1964) The Battle for Stalingrad, New York, NY.

Ciborra, C.U. (1996) The platform organization: recombining strategies, structures and surprises. *Organization Science*, 7 (2), 103-118.

Ciborra, C.U. (1999) Notes on time and improvisation. *Accounting, Management and Information Technologies*, 9 (1), 77-94

Coates, D.E. (2006) People Skills Training: Are You Getting Return on Your Investment?. Performance Support System, VA: Newport News.

Cooper, H.S.F. (1995) Thirteen: The Apollo Flight that Failed. Baltimore, MA: The Johns Hopkins University Press.

Cordner, G. (2010) Reducing Fear of Crime: Strategies For Police Community Oriented Policing Services. Washington, D.C.: U.S. Department of Justice.

Corella, M.F. and Cunha, M.P.E. (2002) Getting Started: Initializing "Organization" Around New Technology. *Management Research*, 5 (3), 149-161.

Crossan, M.M. (1997) Improvise to innovate. *Ivey Business Quarterly*, 62 (1), 37-42.

Crossan, M.M (1998) Improvisation in action. *Organization Science*, 9 (5), 593-599.

Crossan, M.M., and Sorenti, M. (1997) Making sense of improvisation. *Advances in Strategic Management*, 14, 155-180.

Crossan, M.M., Cunha, M.P., Vera, D. and Cunha, J. (2005) Time and organizational improvisation. *Academy of Management Review*, 30 (1), 129-45.

Cunha, M.P., Clegg, S.R. and Kamoche, K. (2006) Surprises in management and organization: concept, sources, and a typology. *British Journal of Management*, 17, 317-29.

Cunha, M.P., Cunha, J.V. and Kamoche, K. (1999) Organizational improvisation: what, when, how and why. *International Journal of Management Reviews*, 1 (3), 299-341.

Cunha, M.P., Kamoche, K. and Cunha, R.C. (2003) Organizational improvisation and leadership: a field study in two computer-mediated settings. *International Studies of Management & Organization*, 33 (1), 34-57.

Cunha, M.P.E., Rego, A., and Kamoche, K. (2009) Improvisation in service recovery. *Managing Service Quality*, 19 (6), 657-669.

Daly, A., Grove, S.J., Fisk, R.P. (2007) The impact of improvisation training on service employees in a European airline: a case study. *European Journal of Marketing*, 43 (3/4), 459-472.

Day, G.S. (1994) The capabilities of market-driven organizations. *Journal of Marketing*, 58(4), 37-52.

Drabek, T. and McEntire, D. (2002) Emergent phenomena and multiorganizational coordination in disasters: lessons from the research literature. *International Journal of Mass Emergencies and Disasters*, 20 (2), 197-224.

Eisenberg, K.M. (1990) Jamming: transcendence through organizing. *Communication Research*, 17 (2), 139-164.

Eisenhardt, K.M. (1997) Strategic decision making as improvisation. In Papadakis, V. and Barwise, P. (eds). *Strategic Decisions*. Norwell, MA: Kluwer, 251-257.

Eisenhardt, K.M. and Tabrizi, B.N. (1995) Accelerating adaptive processes: product innovation in the global computer industry. *Administrative Science Quarterly*, 40, 84-110.

Ellis, R.J. (1982) Improving management response in turbulent times. *Sloan Management Review*, 23 (2), 3-11.

Fournier, S., Dobscha, S. and Mick, D.G. (1998) Preventing the premature death of relationship marketing. *Harvard Business Review*, January-February, 43-51.

Griffiths, B. (2007) *Practical Advice on Critical Incidence Management*. United Kingdom: National Policing Improvement Agency.

Harris, R., Harris, K. and Baron, S. (2003) Theatrical experiences: dramatic script development with employees. *International Journal of Service Industry Management*, 14 (2), 184-99.

Hatch, M.J. (1997) Jazzing up the theory of organizational improvisation. *Advances in Strategic Management*, 14, 181-191.

Hatch, M.J. (1998) The Vancouver Academy of Management jazz symposium: jazz as a metaphor for organizing in the 21st Century. *Organization Science*, 9 (5), 556-568.

- Hatch, M.J. (1999) Exploring the empty spaces of organizing: how improvisational jazz helps redscribe organizational structure. *Organizational Studies*, 20 (1), 75-100.
- Heizer, J.H., and Render, B., (2006) *Principles of Operation Management. (6th Ed)*. Norris BA:Prentice Hall Publishing.
- Hurwitz, S. (2006) Can you learn to think on your feet?. *Across the Board*, 43 (2), 16-20.
- Hutchins, E. (1991) Organizing work by adaptation. *Organization Science*, 2 (1), 14-39.
- Jambekar,A.B. and Pelc, K.I. (2007) Improvisation model for team performance enhancement in a manufacturing environment. *Team Performance Management*, 13 (7/8), 259-274.
- Jackson, P.Z. (1995) Improvisation in training: freedom within corporate structures. *Journal of European Industrial Training*, 19 (4), 25-28.
- John, J., Grove, S.J., and Fisk, R.P. (2006) Improvisation in service performances: lessons from Jazz. *Managing Service Quality*,16 (3), 247-68.
- Johnson, B.M., and Rice, R.E. (1984) Reinvention in the innovation process: the case of word processing. In Rice, R.E. (eds) *The New Media*.pp. 157-183. Beverly Hills: Sage.
- Jones, G. and George, J. (2008) *Contemporary Management*, 5th ed., McGraw-Hill, Boston, MA.
- Jørgensen, H.H.,Owen, L. and Neus, A. (2009) Stop improvising change management!..*Strategy and Leadership*, 37 (2), 38-44.
- Kallinikos, J. (2004) Farewell to constructivism: technology and context-embedded action. In Avgerou, C. and Ciborra, C. (Eds) *The Social Study of IT*, Oxford: Oxford University Press.
- Kamoche, K., Cunha, M.P., & Cunha, J.V. (2003) Towards a theory of organizational improvisation: Looking beyond the jazz metaphor. *Journal of Management Studies*, 40 (8), 2023–2051.
- Kamoche, K. and Cunha, M.P. (1997) Teamwork, knowledge-creation and improvisation. *Proceeding from the internal workshop on teamworking* (pp. 358-374). Nottingham, UK: University of Nottingham.
- Kamoche, K. and Cunha, M.P. (1998) From jazz improvisation to product innovation. Unpublished manuscript, City University of Hong Kong.

Kamoche, K. and Cunha, M.P. (2008) Improvisation and Knowledge. *Management Research*, 6 (2), 93-106.

Katsikeas, C.S., Piercy, N.F. and Ioannidis, C. (1996) Determinants of export performance in a European context, *European Journal of Marketing*, 30 (6), 6-35.

Kelley, S.W., Donnelly, J.H. and Skinner, S.J. (1990) Customer participation in service production and delivery. *Journal of Retailing*, 66 (3), 315-35.

Leith, A. and Riley, N. (1998) Understanding need states and their role in developing successful marketing strategies. *Journal of the Market Research Society*, 40 (1), 25-32.

Leonard, D. and Rayport, J.F. (1997) Spark innovation through empathetic design. *Harvard Business Review*, November-December, 103-13.

Leybourne, S.A. (2009) Improvisation and agile project management: a comparative Consideration. *International Journal of Managing Projects in Business*, 2 (4), 519-535.

Lukas, B.A., Whitwell, G.J. and Hill, P. (2007) Export planning orientation and its antecedents: evidence from exporting IT products, *Journal of Business Research*, 60 (12), 1282-9.

Martin, P. Buying an experience, (14 September, 1999), The Financial Times, p.20.

Martins, L.P. (2007) A Holistic Framework for The Strategic Management of First Tier Managers. *Journal of Management Decision*, 45 (3), 616-640.

McKnight, B. and Bontis, N. (2002) E-improvisation: collaborative groupware technology expands the reach and effectiveness of organizational improvisation. *Knowledge and Process Management*, 9 (4), 219-27.

Mendonca, D. (2007) Decision support for improvisation in response to extreme events: Learning from the response to the 2001 World Trade Center attack. *Decision Support Systems* 43, 952– 967.

Meyer, A. (1998) Antecedents and consequences: Organizing for improvisation: The backstage story of the Vancouver jazz concert. *Organization Science*, 9 (5), 569-576.

Mills, P.K. and Morris, J.H. (1986) Clients as ‘partial’ employees of service organizations: role development in client participation. *Academy of Management Review*, 11 (4), 726-35.

Miner, A., Bassoff, P., & Moorman, C. (2001) Organizational improvisation and learning: A field study. *Administrative Science Quarterly*, 46 (2), 304–337.

Mirvis, P.H. (1998) Practice improvisation. *Organization Science*, 9 (5), 586-92.

Mohr, L. and Bitner, M.J. (1991) Mutual understanding between customers and employees in service encounters. In Holman, R. and Solomon, M. (Eds), *Advances in Consumer Research*, 18, . pp. 611-6. Provo, UT: Association for Consumer Research.

Moorman, C. and Miner, A. (1995) Walking the tightrope: Improvisation and information in new product development.

Moorman, C. and Miner, A. (1998a) The convergence between planning and execution: Improvisation in new product development. *Journal of Marketing*, 62, 1-20.

Moorman, C. and Miner, A. (1998b) Organizational improvisation and organizational memory. *Academy of Management Review*, 23 (4), 698-723.

Nahapiet, J., & Ghoshal, S. (1998) Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23 (2), 242–266.

Nemkova, E., Souchon, A.L., and Hughes, P. (2012) Export decision-making orientation: An exploratory study. *Journal of International Marketing Review*, 29 (4), 349-378.

Nievesa, J., Quintanaa, A. and Osoriob, J. (2013) Knowledge-based resources and innovation in the hotel industry. *International Journal of Hospitality Management*, 38, 65-73.

Nonaka, I. (1991) The knowledge creating company, *Harvard Business Review*, 69 (6), 96-104.

Orlikowski, W.J. (1996) Improvising organizational transformation over time: A situated change perspective. *Information System Research*, 7 (1), 63-92.

Orlikowski, W.J. and Hoffman, J.D. (1997) An improvisational model for change management: The case of groupware technologies. *Sloan Management Review*, 38 (2), 11-21.

Orr, J. (1990) Sharing knowledge, celebrating identity: Community memory in a service culture. In D. Middleton & D. Edwards (Eds.), *Collective remembering*, 168–189. London: Sage.

Ostroff, C. and Bowen, D. (2000) Moving HR to a higher level: HR practices and organizational effectiveness, in Klein, K. and Steve, W.J. (Eds) *Multilevel Theory*,

Research and Methods in Organizations: Foundations, Extensions and New Directions, pp. 221-66. San Francisco, CA: Jossey-Bass.

Pasmore, W.A. (1998) Organizing for Jazz. *Organization Science*, 9 (5), 562-564.

Pearson, C.M., Clair, J.A., Misra, S.K., and Mitroff, I.I. (1997) Managing the unthinkable. *Organizational Dynamics*, 25 (2), 51-64.

Peplowski, K. (1998) The process of improvisation. *Organization Sciences*, 9 (5), 560-561.

Perry, L.T. (1991) Strategic improvising: How to formulate and implement competitive strategies in concert. *Organizational Dynamics*, 19 (4), 51-64.

Poolton, J. and Ismail, H. (2000) New developments in innovation. *Journal of Managerial Psychology*, 15 (8), 795-811.

Pressing, J. (1988) Improvisation: methods and models. In Sloboda, J. (Ed.), *Cognitive Processes in Music; The Psychology of Performance, Improvisation, and Composition*, pp.129-78. Oxford: Oxford University Press.

Preston, L. (2001) Improvisation Provides A Window Into Implicit Processes. Thoughts On Philip Ringstrom's Work, *In Dialogue With Philosopher Eugene Gendlin*.

Quarantelli, E.L. (1997) Ten criteria for evaluating the management of community disasters. *Disasters*, 21 (1), 39-56.

Rashbaum, W.K. (2001) Police officers swiftly show inventiveness during crisis. New York Times A7, New York.

Regine, B. and Lewin, R. (1999) The Soul at Work: *Unleashing the Power of Complexity Science for Business*, New York, NY: Simon & Schuster.

Ribeiro, T.R., Coelho, J.P., and Gomes, J.F.S. (2011) HRM strength, situation strength and improvisation behavior. *Journal of the Iberoamerican Academy of Management*, 9 (2), 118-136.

Schoen, D.A. (1983) *The Reflective Practitioner: How Professionals Think in Action*, Maurice Temple Smith, London.

Schoen, D.A. (1987) Educating the Reflective Practitioner, *Jossey-Bass*, San Francisco, CA.

Sekaran, U. (2003) Research Methods for Business: A Skill Building Approach (4th Ed.). Hoboken, Nj: John Wiley & Sons Inc.

Shackle, G.L.S. (1972) *Epistemics and Economics*, Cambridge: Cambridge University Press.

Shoham, A. (1999) Bounded rationality, planning, standardization of international strategy, and export performance: a structural model examination, *Journal of International Marketing*, 7 (2), 24-50.

Shoham, A. (2002) Standardization of international strategy and export performance: a meta analysis, *Journal of Global Marketing*, 16 (1/2), 97-118.

Slocum, J.W. Jr, McGill, M. and Lei, D.T. (1994) The new learning strategy: anything, anytime, anywhere. *Organizational Dynamics*, 22 (2), 33-47.

Sloman, M. and Webster, L. (2005) Training to learning. *Training & Development*, 59 (9), 58-63.

Slotegraaf, R.J. and Dickson, P.R. (2004) The paradox of a marketing planning capability, *Journal of the Academy of Marketing Science*, 32 (4), 371-85.

Spelman, William, and Brown, D. (1982) *Calling the Police: Citizen Reporting of Serious Crime*. Paper presented at the Police Executive Research Forum, Washington, D.C.

Tsoukas, H. (1996) The firm as a distributed knowledge system: A constructionist approach. *Strategic Management Journal*, 17 (Winter), 11-25.

Ulrich, D. (1997) Human Resource Champions: *The Next Agenda for Adding Value and Delivering Results*, Boston, MA: Harvard Business School Press.

Vendelo, M.T. (2009) Improvisation and learning in organizations – an opportunity for future empirical research. *Management Learning*, 40 (4), 449-56.

Vera, D. and Crossan, M.M. (2005) Improvisation and innovative performance in teams. *Organization Science*, 16 (3), pp. 203-24.

Walzer, N., and Salcher, A. (2003) Management by Jazz: creating innovation from the principles of chaos and order. *Industrial and Commercial Training*, 35 (2), 67-69.

Wang, S.K. (1999). Unpublished Master Thesis. A study on Motivation to start up a Business among Chinese Entrepreneurs. UUM Graduate School

Webb, L. (2006) Learning by doing, *Training Journal*, March, 36-41.

Wenger, E. (1998) Communities of practice: *Learning, meaning and identity*. Cambridge: Cambridge University Press.

Weick, K.E. (1999) The aesthetic of imperfection in organizations. In Cunha , M.P. and Marques, C.A. (eds) *Reading in Organization Science*. Lisbon:ISPA.

Weick, K.E. (1993a) Organizational redesign as improvisation. In Huber, G.P. and Glick, W.H. (eds). *Organizational Change and Redesign*. pp. 346-379. New York: Oxford University Press.

Weick, K.E. (1993b) The collapse of sense making in organization: The Mann Gulch disaster. *Administrative Science Quarterly*, 38, 628-652.

Weick, K.E. (s.d) Tools and tragedies in Wildland firefighting: *barriers to risk mitigation*. Unpublished manuscript, University of Michigan.

Wiltbank, R., Dew, N., Read, S., and Sarasvathy, S.D. (2006) What to do next? The case for nonpredictive strategy. *Strategic Management Journal*, 27 (10), 981-998.

Wirtz, J., Heracleous, L. and Pangarkar, N. (2008) Managing human resources for serviceexcellence and cost effectiveness at Singapore Airlines. *Managing Service Quality*, 18(1), 4-19.

Wujec, T. and Muscat, S. (2002) Return on Imagination: *Realising the Power of Ideas*, London: Prentice-Hall.

Zikmund, W. (2003). Business research methods (7th ed.). South-Western Cengage Learning:Ohio.

Zou, S. and Stan, S. (1998) The determinants of export performance: a review of the empirical literature between 1987 and 1997, *International Marketing Review*, 15 (5), 333-56.

District Police Headquarters (2013) Sibu Crime Statistics. Sibu, Sarawak.

Heuristics as a normative decision theory,
<http://bramson.net/academ/public/BramsonHeuristics%20as%20Normative%20>
Accessed on 11 June 2012.

News Asia,
<http://www.bbc.com/news/world-asia-26748291>. Accessed on April 2014.

Official Portal of Royal Malaysia Police,
<http://www.rmp.gov.my/i2.cfm>. Accessed on 24 Mar 2007

Utusan Online,
The Identity of Militant Group is identified.

http://www.utusan.com.my/utusan/Dalam_Negeri/20130215/dn_03/Identiti-kumpulan-dikenal-pasti#ixzz2MSD8cZXh. Accessed on 14 Feb 2013.

PDRM mobilizes 'civil policing'.

http://ww2.utusan.com.my/utusan/special.asp?pr=theMessenger&y=2013&dt=0326&pub=theMessenger&sec=Features&pg=fe_01.htm . Accessed on 26 Mar 2013.

Wikipedia,

http://en.wikipedia.org/wiki/Normality_test. Accessed on 10 apr 2014.

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 Sibu, 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 Sibu, Sarawak



APPENDIX C

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

Date: 6th & 7th February 2014

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

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 Sibu

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

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

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

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

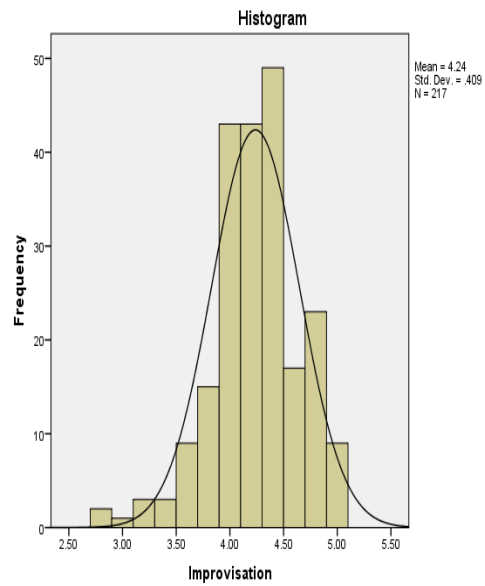
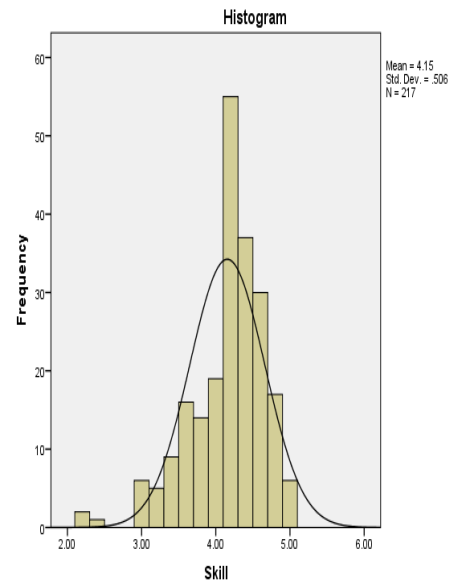
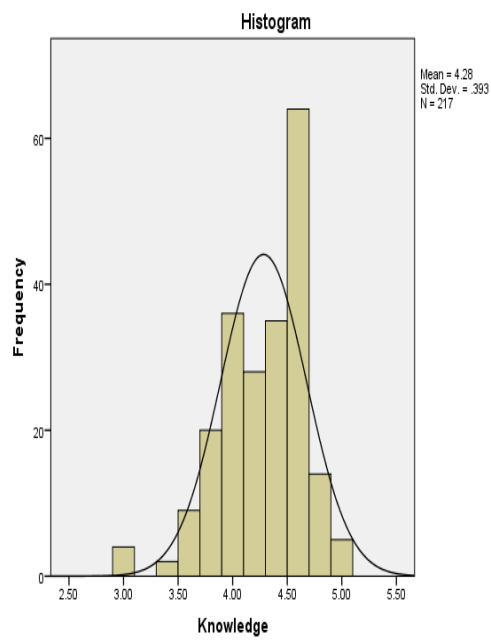
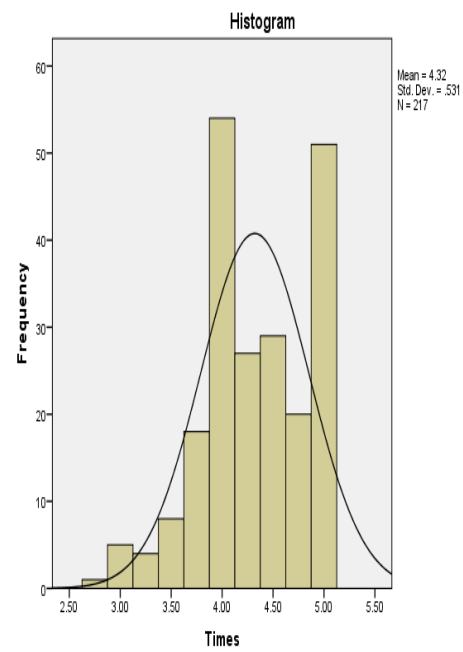
	Strongly Disagree		Disagree		Neither Agree or Disagree		Agree		Strongly Agree	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
I solve problem promptly based on the knowledge I have.	0	0	0	0	12	5.5	117	53.9	88	40.6
I have knowledge about the various processes and activities are performed in others department	1	0.5	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

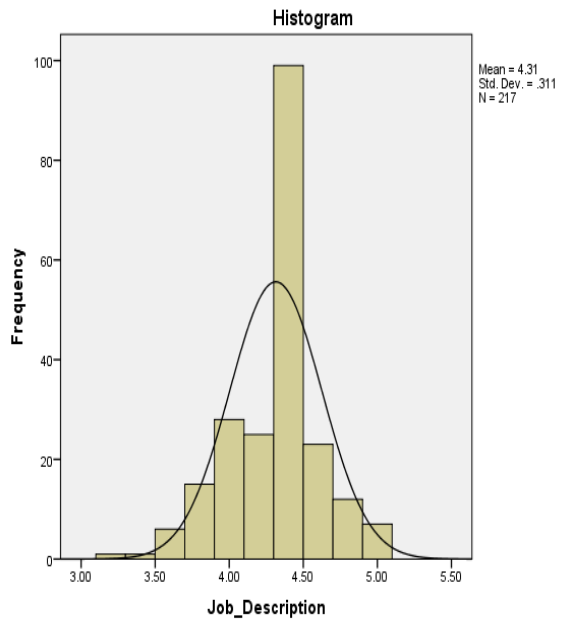
	Strongly Disagree		Disagree		Neither Agree or Disagree		Agree		Strongly Agree	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
In average, my planning time-scale is below a year.	0	0	0	0	13	6	118	54.4	86	39.6
I don't need long time to act right after the plan is set.	0	0	1	0.5	22	10.1	93	42.9	101	46.5
I frequently 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

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	6.929	4	1.732	12.610	.000 ^b
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

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