13/200/198 00

# A STUDY OF EMPLOYEE PERCEPTION OF PERFORMANCE APPRAISAL IN SOFTWARE DEVELOPMENT ORGANIZATIONS

# MASTER OF BUSINESS ADMINISTRATION



004 (043)

Guhanathan P

Department of Computer Science & Engineering

TH

University of Moratuwa

December 2008

93343

University of Moratuwa



# A STUDY OF EMPLOYEE PERCEPTION OF PERFORMANCE APPRAISAL IN SOFTWARE DEVELOPMENT ORGANIZATIONS

By

#### Guhanathan P



The Dissertation was submitted to the Department of Computer Science & Engineering of the University of Moratuwa in partial fulfillment of the requirement for the Degree of Master of Business Administration.

Department of Computer Science & Engineering
University of Moratuwa

December 2008

#### **ABSTRACT**

Performance management of software professionals is very complex because they fall into the category of knowledge workers. Unlike performance appraisals of industrial workers, those of software professionals are more perceptual than factual due to the complexity of their work. The aim of this research is to examine the software professionals' perception about the performance appraisal systems used in software organizations and whether they help them to improve their work performance.

The methodology employed for this study is a quantitative approach and a cross sectional survey. The population for this study is software professionals working in software development organizations in Sri Lanka, who are estimated to be around 14,956 (ICTA 2007). Therefore, for the purpose of the study, the data were collected from 101 software professionals, which is the desired sample size (number of completed surveys), for accuracy level of 10% at the 95% confidence level. A questionnaire was used to obtain the data and it was carefully designed to measure the effectiveness of the performance university of Moratuwa, Sri Lanka.

Electronic Theses & Dissertations

For the analysis of the collected data through the survey, SPSS version 13.0 was used and the data analysis techniques used to prove the hypotheses were descriptive statistics, bivariate correlation coefficient (Pearson's r), causal effect analysis using standardized regression coefficient and Baron and Kenny testing mediation with regression analysis.

www.lib.mrt.ac.lk

The results agree with the previous research of performance appraisal. The sample of professionals used for this survey confirms that their supervisors use performance appraisal methods which contain the three elements: employee participation in the process, participatory goal setting and feedback that are collectively known as employee voice. For the employee-acceptance of the performance appraisal, she/he should perceive that the performance appraisal process is fair and unbiased. The results also confirm that the employee-acceptance is a key predicator for employee-satisfaction of performance appraisal. This would lead to several favourable outcomes such as work performance



i

improvement, improved productivity and high levels of motivation. Baron and Kenny testing for mediation proves that the relationship between employee voice and employee satisfaction, and work performance improvement and outcome is mediated by employee acceptance of performance appraisal.

**Keywords:** Performance appraisal, Performance management, Work performance, Knowledge works



#### ACKNOWLEDGEMENT

I would like to express my sincere thanks to my supervisors Ms. Samanthie Gunasekara, Dr. Chandana Gamage and Mr. Indika Perera, whose guidance was enormously helpful to complete my research.

I would also like to express my sincere thanks to Mrs. Vishaka Nanayakkara, Head of the Department, Department of Computer Science & Engineering, University of Moratuwa, Staffs of Department of Computer Science & Engineering, University of Moratuwa and the Course Coordinators of MBA in IT 2007/09 batch for giving me valuable input and guidance to complete my research.

My sincere thanks my Technical Lead Mr. Anton Janaka Perera for the morale support and guidance which motivated me to complete the research and Mr. Dharshana Jayawardena, Senior Consultant, Creative Technology Solutions Pte Ltd for releasing me from work without any hesitation to carry out my research work.

Electronic Theses & Dissertations

Also I would fike to express my thanks to Dr. Vathsala M. Wickramasinghe, Senior Lecturer, Department of Management of Technology, University of Moratuwa, whose guidance was inevitable to carry out the research.

Last but not least I would like to extend my thanks to all the respondents who took their precious time to fill my questionnaire and also all the friends and colleagues who help were inevitable to get my questionnaire filled in a short span.

Guhanathan P

#### **DECLARATION**

I certify that this thesis doesn't incorporate without acknowledgement any material previously submitted for a degree or diploma in any university to the best of my knowledge and belief it doesn't contain any material previously published, written or orally communicated by another person or myself except where due reference is made in the text. I also here by give consent for my dissertation, if accepted, to be made available for photocopying and for inter library loan, and for the title and summary made available to outside organization.

Guhanathan P (07/9060)

Date

(Temps)

University of Moratuwa, Sri Lanka. Electronic Theses & Dissertations www.lib.mrt.ac.lk

To best of my knowledge above particulars are correct.

**UOM Verified Signature** 

Dr. Chandana Gamage

# TABLE OF CONTENTS

CHAPTEI	R 01	1
INTRODU	UCTION	1
1.1	Introduction	1
1.2	Background & Motivation	1
1.2.1	Introduction to Performance Management and Performance Appraisal	4
1.2.2	What is Performance Management?	5
1.2.3	Importance and Benefit of the Study	8
1.2.4	Definitions	9
1.3	Problem Statement	11
1.4	Objectives of the Research Instituwa, Sri Lanka.  Electronic Theses & Dissertations	11
1.5	Research Designb.mrt.ac.lk.	12
1.6	Brief Review of Literature	19
1.7	Nature and the Form of Results	24
CHAPTE	ER 02	26
LITERAT	ΓURE REVIEW	26
2.1	Introduction	26
2.2	Performance Management Process:	26
2.3	Evolution of Performance Appraisal	28
2.4	Difference between Performance Appraisal and Performance Mana	gement30

2.5	Previous Research Findings	. 32			
2.5.1 I	Performance Appraisal Fairness	. 32			
2.5.2	Aspects of Performance Appraisal Process	. 34			
2.5.2.1	Employee Participation	. 34			
2.5.2.2	Supervisor's Neutrality	. 35			
2.5.2.3	Knowledge of Performance Appraisal Process	.36			
2.5.3	Satisfaction with Performance Appraisal System	.36			
2.5.4	Employees' Acceptance and Perception of Performance Appraisal Fairness	37			
2.5.5	The Factors that are associated with Perceptions of Employee Acceptance	. 42			
2.5.5.1	Procedural Justice	. 42			
2.5.5.2	Employee Voice	. 43			
2.5.5.3	Information Vandity Processes & Dissertations www.lib.mrt.ac.lk				
2.5.6	Developmental Performance Appraisal System	. 45			
2.5.6.1	Elements of Developmental Performance Appraisal	. 45			
2.5.6.2	Attributes of Developmental Performance Appraisal for Procedural				
Fairnes	SS	. 46			
2.5.6.3	Critics and Proponents of Developmental Performance Appraisal	. 46			
2.6	Rationale for the study	47			
CHAPTER	03	. 48			
METHODO	METHODOLOGY48				
3.1	Introduction	48			

3.2	Method of Data Collection	48		
3.2.2	Questionnaires:	48		
3.3	Sample and Population	50		
3.3.1	Population and Sample size	51		
3.4	Conceptual Framework	55		
3.4.1	Conceptual Framework and Questionnaire Design	57		
3.4.1.	1 Organization Information	58		
3.4.1.	2 Employee Information	58		
3.4.1.	3 Employee Voice	58		
3.4.1.	4 Employee Perception of Performance Appraisal	64		
3.4.1.	Appraisal Outcome and Perceived Work Performance	68		
3.5	Variables of Relationshipses & Dissertations www.lib.mrt.ac.lk			
3.5.1	Independent Variable – (IV)	71		
3.5.2	Intervening Variable – (IVV)	71		
3.5.3	Dependent Variable – (DV)	72		
3.5.4	Control Variables	73		
3.6	Hypothesis	73		
3.7	Method Limitations	74		
CHAPTER 047:				
OBSERV	ATIONS / RESULTS / DATA	75		
4.1	Introduction	75		

4.2	Reliability Test
4.3	Item Mean
4.4	Pearson's Correlation Coefficient
4.5	Kendall's tau_b Correlation Coefficient
4.6	Spearman's rho Correlation Coefficient
4.7	Standardized Hierarchical Regression Coefficient
4.8	Analysis - Hypothesis Testing98
4.9	Baron and Kenny Testing of Mediation with Regression Analysis 101
CHAPTER (	)5106
DISCUSSIO	N106
5.1	Introduction
5.2	Mean Itemectronic Theses & Dissertations 106 www.lib.mrt.ac.lk
5.3	Correlation Coefficient 107
5.4	Regression Results
5.5	Sewell-Hauser Effects Analysis of Standardized Regression Coefficient 109
5.6	Baron and Kenny Testing of Mediation with Regression Analysis
5.7	Theory Implications 109
CHAPTER (	06114
RECOMME	NDATIONS AND CONCLUSIONS114
6.1 Introduc	tion114
6.2 Recomm	nendations for Practitioners114

6.2	Recommendations for Future Research	116
6.3	Conclusions	117
REFEREN	NCES	119
APPEND	IX A: FREQUENCY TABLE	127
APPEND	IX B: SUMMARY OF SURVEY RESULTS	145
APPEND	IX C: QUESTIONNAIRE	149
APPEND	IX D: LIST OF SOFTWARE ORGANIZATION SURVEYED	159
APPEND	IX E: LITERATURE SUPPORT FOR EMPLOYEE VOICE	160



## LIST OF TABLES

Table 1.1:- Population and sample
Table 2.1:- Differences between merit rating and performance appraisal29
Table 2.2:- Differences between performance appraisal and performance management30
Table 3.1:- Population and sample for this study50
Table 3.2:- Examples of sample size (number of completed surveys) desired for selected population sizes for accuracy level of 5% at the 95% confidence level
Table 3.3:- Examples of sample size (number of completed surveys) desired for selected population sizes for accuracy level of 10% at the 95% confidence level54
Table 4.1:- Outcomes of reliability test Cronbach's alpha
Table 4.2:- Mean item for each variable
Table 4.3:- Mean item for each item in the participation of employee voice82
Table 4.4:- Mean item for each item in the feedback of employee voice83
Table 4.5:- Mean item for each item in the goalisetting of employee voice
Table 4.7:- Mean item for each item in the employee acceptance scale86
Table 4.8:- Mean item for each item in the employee satisfaction scale87
Table 4.9:- Mean item for each item in the work performance improvement scale88
Table 4.10:- Pearson's correlation coefficient for the variables
Table 4.11:- Kendall's tau_b coefficient for the variables91
Table 4.12:- Spearman's rho coefficient for the variables
Table 4.13:- Hierarchical regression coefficient for employee acceptance scale94
Table 4.14:- Hierarchical regression coefficient for employee satisfaction scale95
Table 4.15:- Hierarchical regression coefficient for work performance improvement and outcome scale.

Table	4.16:-	Regression	analysis	using	Baron	and	Kenny	method	for	employee
satisfa	ction sc	ale variable								102
Table 4.17:- Regression analysis using Baron and Kenny method for work performance										
improv	ement :	and outcome	scale as d	lepende	nt varia	ble				104



## LIST OF FIGURES

Figure 1.1:- The Major human resource management processes in organizations	4
Figure 1.2:- HRM activities	5
Figure 1.3:- Conceptual framework	15
Figure 2.1:- Steps in performance management process	27
Figure 2.2:- Performance management cycle	28
Figure 3.1:- Growth of IT workforce by sector	51
Figure 3.2:- IT workforce by job category in IT sector	53
Figure 3.3:- Conceptual framework	5 <del>6</del>
Figure 4.1:- Variables and paths	102





#### LIST OF ABBREVIATIONS

DSTL: Defense Science and Technology Laboratory

DV: Dependent Variable

EDB: Export Development Board

HR: Human Resources

HRM: Human Resources Management

ICTA Information and Communication Technology Agency

IEEE: Institute of Electronics and Electrical Engineering

IT: Information Technology

IV: Independent Variable

IVV: Intervening Variable

PA: Performance Appraisal

PAS: University of Moratuwa, Sri Lanka.

Electronic Theses & Dissertations

PJ: Procedural Justicement ac. lk

PGF: Participation, Goal setting and Feedback

SEA: Software Export Association

SHRM: Society of Human Resources Management

SHRM: Strategic Human Resources Management

SLASI: Sri Lanka Association for Software Industry

SPSS: A software package originally known as Statistical Package for the Social

Sciences

UK: United Kingdom

US: United States of America

USA: United States of America