REFERENCES AND BIBLIOGRAPHY

Alberto and Pierluigi (2008), *Motivation Strategies for Knowledge Workers*, Journal of Technology Management & innovation, vol. 3, 21-32.

Allison and William W. (2006), *Motivation: Industry's Challenge*, vol. 51 Issue: 5, 60-63.

Bogdan A. (2008), *Motivational Issues in Knowledge Work*, Academy of Economic Studies, Bucharest, România, 36-38.

Relan A. (1997), Motivation Strategies in Computer-Based Instruction: Some Lessons from Theories and Models of Motivation, Conference Paper.

Blanchard and Scott (2009), *Best practices in employee motivation*, Manufacturing Today, Retrieved 15th of March 2010 from http://www.allbusiness.com/economy-economic-indicators/economic-conditions-decline/12521945-1.html.

Cantrell S. and Miele S. (2007), *Workforce of One: The Role of the Line Manager*, Research Note, Accenture Institute for High Performance Business Issue: 10.

Valencia C. (2009), *Motivation and Productivity in the Workplace*, Retrieved 28th of January 2010 from < http://www.westminstercollege.edu>.

University of Moratuwa, Sri Lanka.

Cathleen S. Stein To Carleton Red 296% Potential Strategies and Tactics for organizational Performance improvement, vol. 35.

WWW.11b.mrt.ac.lk

Kaner C., Walter P.B. (2004), Software Engineering Metrics: What Do They Measure and How Do We Know? 10th international software metrics symposium, metrics.

David N. C. (2006), *The Challenge of Productivity Measurement*, Pacific Northwest Software Quality Conference.

Simmons D. B. (2000), Software Organization Productivity, Software Productivity Improvement Laboratory, Texas A&M University.

Dimitris (2008), An evaluation of employee motivation in the extended public sector in Greece, Emerald Group Publishing Limited, vol. 30 No. 1, 63-85.

Manolopoulos D. (2008), *Does the board know whether it is the money, or the love?*: *Employee motivation in the Greek public sector*, Human Resource Management International Digest, vol. 16 Issue: 3.

Donald (2003), Measuring productivity In the software industry, Communications of the ACM, vol. 46.

Rogers E.W. and Wright P.M. (1998), Measuring Organizational Performance in Strategic Human Resource Management: Problems and Prospects, Cornell University ILR School.

Giovannini E. (2001), *Measuring Productivity*, OECD Manual, organization for economic co-operation and development.

Horwitz F. M., Heng C. T. and Ahmed H. (2003), *Attracting, motivating and retaining knowledge workers*, Human Resource Management Journal, vol. 13, 23-44.

Gboyega A. O. (2003), Concept and measurement of productivity, Department of Economics University of Ibadan.

Gupta R.K. (2007). *Strategic HRM (SHRM) and Business Performance*, Retrieved 10th of May 2010 from http://www.indianmba.com/Faculty_Column/FC656/fc656.html>.

Doloi H. (2007), Twinning Motivation, Productivity and Management Strategy in Construction Projects, The University of Melbourne, Engineering Management Journal vol. 19 No. 3.

Kiani H. S., Khurshid O., Ahsan A. and Sajid A. (2007), Exploring 'Employee Satisfaction' as a Quality and Productivity Enhancement Tool for IT Sector of Pakistan, research paper, CASE ISB Pakistan.

Intel (2004), Measuring Employee Productivity, White Paper, Intel Information Technology Electronic Theses & Dissertations

www.lib.mrt.ac.lk

Terry J. (2007), Motivating a multicultural workforce, vol. 39 No. 1, 59-64.

Chaisson J.(2005), *On the Line: the Manager's Role in Performance*, Human Capital Institute, Executive Brie.ng.

Delaney J.T. and Huselid M.A. (1996), *The Impact Of Human Resource Management Practices On Perceptions Of Organizational Performance*, Academy of Management Journal, vol. 39, No. 4, 949–969.

Siugzdinien J. (2008), *Line Manager Involvement in Human Resource Development*, Kauno technology university, ISSN 1648-2603, vol. 25.

Kazunori and Toshihiko (2010), *The Productivity and Human Capital in the Japanese Software Industry: The View of Service Innovation*, American Journal of Economics and Business Administration, 73-77.

Hall L. (2004), *HRM Practices and Employee and Organizational Performance*, Research Paper, Manchester Metropolitan University.

Dyer L. and Reeves T. (1994), *Human Resource Strategies and Firm Performance*, Research Paper, Cornell University ILR School.

Harris L.C. and Ogbonna E. (2001), *Strategic human resource management, market orientation and organizational performance*, Journal of Business Research, 157-166.

Huselid M. A. (1995), The impact of Human Resource management practices on Turnover, Productivity and corporate financial performance, Academic of Management journal, vol. 38 No3, 635-872.

Myers M. E. (1991), *Motivation and Performance in the Information Systems Field*, A Survey, Kennesaw State College, 32 -37.

Mohanta G.C., Kannan V. and Thooyamani K.P. (2006), *Strategies for Improving Productivity Of Knowledge Workers*, An overview, Strength Based Strategies.

Muhammad (2009), Is IT Industry Productive: A Performance Based Investigation of IT Sector Firms Operating in Pakistan, International Journal of Business management, vol. 4 No5.

Govindarajulu N. and Daily B. F. (2004), *Motivating employees for environmental improvement*, Industrial Management & Data Systems, vol. 104, 364-372.

Neugarten and Dail (1985). Strategies and Tactics for Productivity Improvement, Implications, for Public Personnel Managers, Public Personnel Management, Winters 2 vol. 14 Issue 4,417c Theses & Dissertations

WWW.lib.mrt.ac.lk
Patrick M., Timothy, Lisa and Mathew (2005), The Relationship between HR
Practices and firm Performance: Examining Causal Order, Personnel Psychology,
409–446.

Mitchell P. (2010), *The Key to Productivity, A step by step guide to improve workplace productivity*, The Learning Company Ltd Publishing Group New Zealand, Retrieved 28th of January 2010 from < http://www.thekeytoproductivity.com>.

Clark R. M. (2009), Are we having fun yet? Creating a motivating work environment Industrial and Commercial Training, vol. 41 Issue: 1.

Beecham S., Baddoo N., Hall T., Robinson H. and Sharp H. (2007), *Motivation in Software Engineering: A Systematic Literature Review*, Technical Report, University of Hertfordshire.

Kemppila S. and Lonnqvist A. (2003), *Subjective Productivity measurement*, Research Paper, Institute of Industrial Management, Tampere University of Technology, Finland.

SLICTA (2010), Sri Lanka Information and Communication Technology Association, Retrieved 18th of August 2010 from http://www.slicta.lk/advantage/industry/.

Small Business Management (2010), *Employee Productivity Improvement*, Retrieved 28th of January 2010 from < http://www.bizmove.com/small-business-management>.

Sri Lanka Export Development Board (2010), *Companies Listed in the Software Product Category*, Retrieved 01th of May 2010 from http://www.srilankabusiness.com>.

McConnell S. (2008), *Measuring Productivity of Individual Programmers*, Retrieved 19th of January 2010 from http://forums.construx.com>.

Sullivan and John (2006), *Personalizing motivation*, *Workforce Management*, vol. 85 Issue: 6, 50-50.

Timothy M., Moynihan L. M., Park H. J. and Wright P. M. (2001), *Beginning to Unlock the Black Box in the HR Firm Performance Relationship: The Impact of HR Practices on Employee Attitudes and Employee Outcomes*, Research Paper, Cornell University ILR School.

United States Office of Personnel Management (2001), A Handbook for Measuring Employee Performance, Performance Management Practitioner Series.

Electronic Theses & Dissertations
University of Leeds (2007), Roles and responsibilities, Retrieved 05th of June 2010
from http://www.wewww.disk/safety/lone working/roles.htm>.

Scacchi W. (1995), *Understanding Software Productivity*, Advances in Software Engineering and Knowledge Engineering, D. Hurley (ed.), vol. 4, 37-70.

Wilson and Michael (2005), *The Psychology of Motivation and Employee Retention*, Maintenance Supplies.

APPENDIX A: Survey 1 – Motivation Strategies and Practices and Employee Productivity in the Sri Lankan Software Industry

A Study on the Value of Motivation Strategies and Practices for the Productivity Improvement in the Sri Lankan Software Industry

Dear Sir/Madam,

I am a postgraduate student of University of Moratuwa, engaged in a research on "A Study on the Value of Motivation Strategies and Practices for the Productivity Improvement in the Sri Lankan Software Industry" as a partial fulfillment of the Master of Business Administration degree program.

Software companies invest more on employee motivation to improve their productivity. This research is very important to identifying the real effectiveness of those Motivation strategies and practices of real sworking environment in the Sri Lankan software industry. Iib. mrt. ac.lk

This questionnaire is a part of the research study. I would really appreciate if you could spend few minutes of your precious time to fill the questionnaire and be a part of this valuable research in Sri Lanka. Information in this questionnaire will remain completely confidential and be used solely for the academic purposes. Further, I am not requesting you to provide your name, company name etc, as I want to assure your anonymity.

Thank You!

K.K. Sonal Jayawardene

This survey is to be mainly filled by Professionals who are aware about organizational Business strategy and Management Practices.

Section 1: Motivation Strategies and practices

Please rank the Top Ten Motivation Strategies / practices according to its significance and criticalness on how much it contributes for improving employees' motivation of your company. (1: Best, 2, 3 etc.)

Motivation Strategies and practices	Rank
1. Rewards and pay	
2. Provide better working environment	
3. Job security	
4. Type of work	
5. Redesigning jobs	
6. Sense of responsibility and ownership	
7. Career development and opportunity	
8. Competition	
9. Feedback	
10. Top management support	
11. Recognition for the job	
12. Flexibility	
13. Loyalty	
14. Working balance iversity of Moratus	wa, Sri
15. Setting work related goals.	Disserta
10. Feat of famile	risseria
17. Effective discipline and punishment.	
18. Satisfying employees needs	
Others (please specify):	

Section 2:

Please rank activities which you are practicing under above Top level Strategies, as you are using them in your company. (1: Best, 2, 3... etc.)

2.1 Motivation Strategy and practice: Rewards and pay

	Rank
a) Provision of fair wage	
b) Rewarding the staff with pay Incentives	
c) Base rewards on job performance	
d) Lump sum increases	
e) Plaques with gift certificates	
f) Rewards are frequent, immediate	
g) Additional vacation time	

2.2 Motivation Strategy and practice: Provide better working environment

	Rank
a) Encourage Team Work	
b) Enable Better Communication in the working	
environment	
c) Enable Friendly/ cooperative working environment	
d) The open door policy with management	
d) Sympathetic help with personal problems	
e) Provide Good working conditions	

2.3 Motivation Strategy and practice: Type of work

		Rank
a)	Supporting Achievement of the work tasks	
b)	Access to leading-edge technology products	
c)	Provide Interesting work	
d)	Provide Challenging work	
e)	Supporting for competence of Moratuwa Sri La	nka
f)	Supporting for creative work	anxa,
	Electronic Theses & Dissertation	ns

www.lib.mrt.ac.lk 2.4 Motivation Strategy and practice: Sense of responsibility and ownership

	Rank
a) Provide Opportunity to take responsibilities	
b) Provide Additional responsibilities	
c) Provide Additional independence or authority	
d) Provide Freedom to plan and work independently	
e) Allow Freedom to explore	

2.5 Motivation Strategy and practice: Recognition

	Rank
a) Recognition of success	
b) Improve Status	
c) Respect	
d) Supporting for esteem and reputation	

2.6 Motivation Strategy and practice: Top management support

	Rank
a) Improve Relationship with supervisor	
b) Improve Contact with top management	

2.7 Motivation Strategy and practice: Feedback

	Rank
a) Praise and acknowledgement	
b) Full appreciation of work done	
c) Positive reinforcement / high expectations	

2.8 Motivation Strategy and practice: **Redesigning jobs**

	Rank
a) Job enlargement ¹	
b) Job rotation ²	
c) Job enrichment ³	

¹Job enlargement: Job enlargement increases the variety of tasks a job includes. Job enlargement may reduce some of the monotony. Dissertations

2.9 Motivation Strategy and practice: Career development and opportunity

	Rank
a) Attractive career plans	
b) Promotions and growth in the organization	
c) Funding for conferences/Studies	

2.10 Motivation Strategy and practice: Flexibility

	Rank
a) Flextime for working	
b) Flexi place for working	
c) Job sharing or twinning	

²Job rotation: This practice is signs (people to different jobs or tasks to different people on a temporary basis.

³**Job enrichment:** This application includes not only an increased variety of tasks, but also provides an employee with more responsibility and authority.

Section 3: Measuring Employee Productivity

3.1 Are you practicing a formal way of measuring employee productivity in you company?	l
Yes No	
3.2 Are the Employee Performance evaluations documented in your company? Yes No No	
3.3 Please select the Type of Productivity measurement which you are using.	
a) Subjective Productivity measurement such as perception base measurements	
b) Objective measurement such as Productivity matrixes	
c) Both Subjective and Objective measurements University of Moratuwa, Sri Lanka.	
3.4 If you are using Subjective Productivity measurement such as Perception ba productivity measurement, please rank the followings according to its significa and criticalness.	
(1: Best, 2, 3 etc.)	
	Rank
a) Internal process perspective - Productivity in Internal Process	
b) Financial perspective-Financial impact of Productivity	
c) Customer perspective -Productivity on Customers	
d) Learning and growth perspective- Better Education and Growth	
Other (please specify):	

3.5 If you are using other productivity measurements, please mark all which you a	ıre
using in your company.	

Measurement Type	
a) A ratio of the amount of product ¹ to the resources consumed (usually effort) ²	
b) A ratio of the amount of the functionality delivered ³ to the resources consumed	
c) Balanced Scorecard (BSC) Designer	
d) Performance Prism	
e) Performance Dashboards	
f) Key Performance Indicators (KPI)	
Others (please specify):	_
Product may be measured in lines of code, classes, screens, or any other unit product etc. University of Moratuwa, Sri Lanka. Electronic Theses & Dissertations Effort is measured in terms of staff hours, days, or months WWW.IID.IMT. ac.lk Functionality may be measured in terms of use cases, requirements, features function points as appropriate to the nature of the software and the developmenth etc.	s, or
Section 4: General Information 4.1. Number of Employees in the company	
Less than 100	
100-500	
More than 500	

4.2.	What is	vour	current	design	ation	in the	organiz	zation?
		J						

Project Manager		
1 Toject Wallager		
Software Archite	ect	
Tech Lead		
Senior Software	Engineer	
Software Engine	er	
Senior Quality A	ssurance Engineer	
Quality Assuran	ce Engineer	
Business analyst		
Any Other (Plea	se Specify):	
4.3. Year of exp	erience in /current Organization University of Moratus	wa Sri Lanka
Less Than	Electronic Theses & I	
1-3	www.lib.mrt.ac.lk	
3-5		
5-10		
More than 10		
		<u></u>
4.4. Year of exp	erience in the industry	
Less Than 1		
1-3		
3-5		
5-10		
More than 10		
L		<u></u>

4.5. Your company type:	
Mainly software product oriented	
Mainly software project oriented	
Both	
Other (please specify):	
4.6. Your company is developing software, main	nly for the
Domestic market	
Overseas market	
Other (please specify): University of Moratur Electronic Theses & I www.lib.mrt.ac.lk	wa, Sri Lanka. Dissertations
Thank you for your pa	articipation.
Please save your o	changes.

Please e-mail the completed questionnaire to sonal.jayawardene@yahoo.com

End of the Survey.

APPENDIX B: Survey 2 – Motivation Strategies and Practices for the Productivity Improvement in the Sri Lankan Software Industry

A Study on the Value of Motivation Strategies and Practices for the Productivity Improvement in the Sri Lankan Software Industry

Dear Sir/Madam,

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Software companies invest more on employee motivation to improve their productivity. This research is very important to identify the real effectiveness of those motivation strategies and practices and practices are real working environment in the Sri Lankan software industry ronic Theses & Dissertations

This questionnaire is what of the research study. I would really appreciate if you could spend few minutes of your precious time to fill the questionnaire and be a part of this valuable research in Sri Lanka. Information in this questionnaire will remain completely confidential and be used solely for the academic purposes. Further, I'm not requesting you to provide your name, company name etc, as I want to assure your anonymity.

Thank You!

K.K. Sonal Jayawardene

This survey is to be mainly filled by the Professionals who are not engaged in management activities in the organization.

SECTION 1 : Employee Motivation

This section is about the <u>Employee Motivation</u>. Please select the most applicable degree of your perception on your Motivation in the current work place under each category.

Question No	Category ersity of Moratuwa, Electronic Theses & Disse Our organization has performance related pay schemes. WWW.1D.mrt.ac.lk	Strongly agree	I greet	Neutral Production	Disagree	Strongly disagree
1.1	Our organization has performance related pay schemes.					
1.2	I am having a fair wage in relation to my work effort and the qualifications.					
1.3	I am motivated by the rewards and the promotional opportunities in my company.					
1.4	The management makes effort to create a collaborative work environment, to build relationships of trust and mutual understanding among employees.					
1.5	The management makes any possible effort to create an open and honest communication among all and to share knowledge and information in all directions.					
1.6	The work environment motivates me to do hard work.					
1.7	I feel that I can voice myself in an open, honest environment.					
1.8	My organization helps me to balance my work and my family life.					
1.9	My present job gives me a sense of personal and professional achievement.					

1.10	The assigned work activities are creative and interesting to me.					
1.11	I am working with enthusiasm because of this challenging work and the occupation.					
1.12	My job is creative and produces something meaningful.					
1.13	I feel accomplished by working in my company as I am considered as a responsible and accountable employee.					
1.14	I feel a real responsibility for organization's goals and I am motivated to behave in ways that improve them.					
1.15	The organization provides me the freedom to decide how to carry out my work and encourages me to take initiatives with my ideas. Crs1ty of Moratuwa,	Sri	Da	ank	ca.	
1.16	I have a feeling of security stability and continuity in my job leses & Diss	ert	ati	ons	$ \Box $	
1.17	I receive appropriate recognition for my contributions.					
1.18	My present job is respected.					
1.19	I am satisfied because of the good relationship I have with my supervisor.					
1.20	Top management knows and understands the problems faced by the employees and they provide support to overcome them.					

Question No	Category	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1.21	Often I get honest performance feedback during a review process.					
1.22	I feel appreciated for the good work that I do.					
1.23	I have an attractive career path and I feel that working for the company will lead to the kind of future I want. University of Moratuwa,	SFi	Da	anl	ca.	
1.24	My activities in the organization allows me improve as a person, enhance my self-confidence, get matured and self-accomplished.	ert	ati	ons	5	
1.25	I am willing to work harder than I have to in order to help this company succeed.					
1.26	I feel myself as an organization member, loyal and involved to it.					
1.27	I feel that the company cares about its employees.					
1.28	I am proud to tell others that I am part of this organization.					
1.29	I am generally satisfied with the kind of work I do in this job.					
1.30	All things considered, working at my company brings me happiness and satisfaction and motivation with my current job.					

SECTION 2: Employee Productivity

This section is about the <u>Employee Productivity</u>. Please select the most applicable degree of your perception on your Productivity in the current work place under each category.

Question No	University of Moratuwa, Electronic Theses & Disse	Strongly Strong	Agree Agree	Neutral Neutral	Disagree .	Strongly Disagree
2.1	I am always maintaining high level of accuracy in my work.					
2.2	I am always able to produce Useful and Effective work.					
2.3	Quality of my work is very good.					
2.4	I am capable of finding creative solution for a given problem.					
2.5	I am always achieving my work related goals effectively.					
2.6	At an overall level, my Productivity in the Internal Processes is very high.					
2.7	I am very efficient in Customer Support such as average time spent answering emails, answering phone calls, or handling complaint/comment letters etc.					

2.8	I am able to build good customer relationships regarding the work.					
2.9	I am able to maintain better Customer Satisfaction on the work done.					
2.10	At an overall level, my productivity is very high on customers.					
2.11	Very often I am able to save time taken for a given task by resolving it faster.					
2.12	I am able to reduce the waste such as reducing rework, faults, etc.					
2.13	I always meet the target time such as schedule time/deliveries, etc.					
2.14	At an overall level my productivity from a financial perspective is very high.					
2.15	I speed up my implementations by fast applying what I have fearned to take on a new and more challenging tasks.	Sti	La	ank	a.	
2.16	My knowledge gaining ability and Skills levels are very high leses & Disse	eri	ati	2119	S	
2.17	I am flexible to work on any given task of tesponsibility at ac.lk					
2.18	At an overall level my productivity on Learning and growth perspectives are very high.					
2.19	My commitment is very high toward my organization.					
2.20	I feel very loyal to my organization.					
2.21	I am very motivated to work in this organization.					
2.22	At an overall level my productivity is very good in respect of my work.					

SECTION 3: Line Management Activities on Employee Productivity

This section is about the <u>Line management (Immediate Supervisor) activities on Employee Productivity</u>. Please select the most applicable degree of your perception to what extent you agree or disagree with each of the following statement with regards to your line manger/Immediate Supervisor.

Question No	Gategory ersity of Moratuwa, S Electronic Theses & Disse	Strongly agree	Isa Isa	Neuffal	Disagree	Strongly disagree
3.1	Line managers ensure that a productive, professional working relationship exists with the colleagues concerned WWW.110.mrt.ac.lk					
3.2	Line manager and colleagues both able to express opinions about the quality of performance and factors influencing any outcomes.					
3.3	They support to maintain the quality of the work by monitoring work processes and measuring operational performance.					
3.4	Line managers are ensuring that relevant information and updates on progress made in significant areas of work are passed onto the colleagues.					
3.5	Line managers communicate necessary information clearly and periodically to the staff members.					
3.6	Line Manager provides advice and support for productivity improvement where and when appropriate.					
3.7	Line Manager always seeks to identify a colleague's particular strengths and use them to the best advantage.					
3.8	Line manager is prepared to act before a problem arises in work environment.					

3.9	Line Manager recognizes employees' weaknesses and provides constructive feedback and helps to overcome them.				
3.10	Employees feel their job performance is fairly evaluated and receive credit for a job well done.				
3.11	Line managers discuss periodically the performance, development and the learning needs of the employees.				
3.12	They provide technical expertise when ever needed by the employees.				
3.13	They are familiar with the employees' job description and work specification so they make clear what is expected from the employees.				
3.14	Line Managers help and support employees to take more responsibility for how they do their jobs by coaching and guidance versity of Moratuwa	STi		an	
3.15	Line manager is credible and accountable for the employee productivity	eri	affi	one	
3.16	At an overall level line management activities are positively impact on employee productivity in my company. WWW 110 mrt ac 1k				

SECTION 4 : General Information

Following information will be collected to describe the overall survey sample and this information will not be used to identify specific respondents.

4.1 What is your current designation in the o	organı	ization?	4.2 Level of educational qualifications	
Software Architect]	Diploma / Certificate	
Senior Software Engineer		-	Professional Qualification	
Software Engineer	Uı	niversit	Bachelors Degree uwa, Sri Lanka	
Senior Quality Assurance Engineer	El	ectronic	Postgraduate Level (Postgraduate Diploma, Masters, PhD)	
Quality Assurance Engineer	W	ww.lib.i	mrt.ac.lk	
Senior Business Analysts			4.3 Years of experience in the current Organization	
Business Analysts			Less Than 1	
Database Administrator		-	1-3	
Technical Writer		-	4 -6	
Any Other (Please Specify):		_	7-10	
		J	More than 10	

4.4 Years of experience in the industry		4.5 Please select the age group you belong to	0
Less Than 1		Less than 21 years	
1-3 4-6		21-30 years	
7-10 More than 10		31-40 years	
11010 than 10	, Ш	41 -50 years	
		More than 50 years	
4.6 Gender Male		4.7 Marital status V Single Woratuwa, Sri Lanka	
Female	www lib	Marhases & Dissertations	

Thank you for your participation

Please e-mail the completed questionnaire to sonal.jayawardene@yahoo.com

APPENDIX C: Reliability and Factor Analysis of Survey 2

Reliability analysis: Section 1 - Motivation Strategies and Practices

Reliability Statistics

Cronbach's	Cronbach's Alpha Based	
Alpha	on Standardized Items	N of Items
.916	.924	30

Factor analysis: Section 1 - Motivation Strategies and Practices

Communalities

Communalities

	Initial	Extraction			Initial	Extraction
Q1.01	1.000	690	C Manataur	Q1.16	1,000	.601
Q1.02	1,000	ersity of	Moratuw	Q1.I7	1.000	.660
Q1.03	1.000	.595	heses & D	Q1.18	1.000	.665
Q1.04	1.000	.640	.ac.lk	Q1.19	1.000	.697
Q1.05	1.000	.686		Q1.20	1.000	.723
Q1.06	1.000	.686		Q1.21	1.000	.492
Q1.07	1.000	.679		Q1.22	1.000	.697
Q1.08	1.000	.685		Q1.23	1.000	.682
Q1.09	1.000	.706		Q1.24	1.000	.695
Q1.10	1.000	.676		Q1.25	1.000	.588
Q1.11	1.000	.771		Q1.26	1.000	.721
Q1.12	1.000	.730		Q1.27	1.000	.567
Q1.13	1.000	.592		Q1.28	1.000	.749
Q1.14	1.000	.680		Q1.29	1.000	.724
Q1.15	1.000	.645		Q1.30	1.000	.677

Extraction Method: Principal Component Analysis.

Extraction Method: Principal Component Analysis.

Reliability analysis: Section 2 – Employee Productivity

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.940	.942	22

Factor analysis: Section 2 – Employee Productivity

Communalities

Communalities

	Initial	Extraction			Initial	Extraction
Q2.01	1.000	.693		Q2.12	1.000	.665
Q2.02	1,000	versit498	f Moratuw	Q2.\$3 ₁	Lan. 1990	.547
Q2.03	1 E.000	-	heses & D	Q3.441	ation 800	.579
Q2.04	1,000		.ac.lk	Q2.15	1.000	.616
Q2.05	1.000	.673		Q2.16	1.000	.552
Q2.06	1.000	.642		Q2.17	1.000	.737
Q2.07	1.000	.634		Q2.18	1.000	.580
Q2.08	1.000	.829		Q2.19	1.000	.703
Q2.09	1.000	.820		Q2.20	1.000	.688
Q2.10	1.000	.683		Q2.21	1.000	.696
Q2.11	1.000	.502		Q2.22	1.000	.523

Extraction Method: Principal Component Analysis.

Extraction Method: Principal Component Analysis.

Component Matrix^a

		Component				
	1	2	3	4		
Q2.01	.687	002	469	.032		
Q2.02	.639	.220	204	.028		
Q2.03	.682	.031	467	006		
Q2.04	.614	.013	353	184		
Q2.05	.765	.030	151	254		
Q2.06	.731	116	.044	303		
Q2.07	.700	257	.181	.212		
Q2.08	.580	538	075	.445		
Q2.09	.733	461	.010	.265		
Q2.10	.703	430	020	.061		
6214Ve	rsity663	Morab	ıwa,.84i	Landso.		
E 192t1	onic ₆ Td	neses ₁ §5	Dissout	ation ₆₀₀		
Q2!13V	lib.1764.	ac.lk 13	.071	186		
Q2.14	.616	090	.312	308		
Q2.15	.708	.023	.277	.192		
Q2.16	.628	.362	.092	132		
Q2.17	.670	.489	142	.170		
Q2.18	.737	.149	.065	103		
Q2.19	.701	.344	209	.221		
Q2.20	.560	.423	.267	.353		
Q2.21	.609	.279	.472	.157		
Q2.22	.709	.098	.078	064		



Extraction Method: Principal Component Analysis.

a. 4 components extracted.

Reliability analysis: Section 3 – Line management activities

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.907	.913	16

Factor analysis: Section 3 – Line management activities

Communalities

Section

		Initial	Extraction	
Univer	Q3.01 Q3.02	1.000 Morat	.741. uwa, Sr i	Lanka.
Electro www.1	Q3.03 Q3.04	neses & 1.000 .ac.lk .000	Dissert .717	ations
	Q3.05	1.000	.640	
	Q3.06	1.000	.701	
	Q3.07	1.000	.600	
	Q3.08	1.000	.601	
	Q3.09	1.000	.709	
	Q3.10	1.000	.612	
	Q3.11	1.000	.741	
	Q3.12	1.000	.623	
	Q3.13	1.000	.663	
	Q3.14	1.000	.707	
	Q3.15	1.000	.590	
	Q3.16	1.000	.681	

Extraction Method: Principal Component Analysis.

Component Matrix^a

		Component				
	1	2	3	4		
Q3.01	.661	.348	.115	412		
Q3.02	.580	129	.487	409		
Q3.03	.684	300	194	347		
Q3.04	.754	.078	106	056		
Q3.05	.622	.459	058	199		
Q3.06	.645	.027	.532	040		
Q3.07	.681	.304	200	.063		
Q3.08	.608	.372	305	.016		
Q3.09	.707	225	395	055		
Q3.10	.605	.442	074	.211		
Q3.11	.675	532	007.	.055		
Q3.12	181ty 01 613	1 V101 att .136		439		
Q3.13	onic 11 .687	ieses &	075	ations .399		
Q3.14	.654	ac.lk .021	.416	.324		
Q3.15	.583	496	025	.062		
Q3.16	.769	248	163	040		



Extraction Method: Principal Component Analysis.

a. 4 components extracted.

APPENDIX D: Descriptive Statistics of Survey 2

Frequency Tables: Section 1 - Motivation Strategies and Practices

Item Statistics

Item Statistics

	Mean	Std. Deviation	N		N
	Mean	Deviation	1N		11
Q1.01	3.5581	.96917	267	Q1.16	
Q1.02	2.8951	1.24916	267	Q1.17	
Q1.03	2.9176	1.28641	267	Q1.18	
Q1.04	3.5506	.91780	267	Q1.19	
Q1.05	3.4981	.85565	267	Q1.20	
Q1.06	3.4382	.86653	267	Q1.21	
Q1.07	3.3970	Iniversity	267/10	rat uwa,	Sri
Q1.08	7566	Elect-96397	T267se	Q1.23	ert
Q1.09	3,5581	WWW.83136	nr ² 67c 1	Q1.24	
Q1. 10	3.4419	.84036	267	Q1.25	
Q1.11	3.4682	.89795	267	Q1.26	
Q1.12	3.4906	.85998	267	Q1.27	
Q1.13	3.6367	.76522	267	Q1.28	
Q1.14	3.5131	.91089	267	Q1.29	
Q1.15	3.5019	.84237	267	Q1.30	

		Std.	
	Mean	Deviation	N
Q1.16	3.7154	1.01930	267
Q1.17	2.9551	1.29699	267
Q1.18	3.9101	.71462	267
Q1.19	3.0599	1.30217	267
Q1.20	2.4382	1.24413	267
Q1.21	2.9963	1.26698	267
Q1.22	3-0262	1.33041	267
Q1.23	3.0599	1.00196	267
Q1.24	3.4494	.84530	267
Q1.25	3.3184	1.22004	267
Q1.26	3.3483	1.26937	267
Q1.27	3.2285	.87802	267
Q1.28	3.7491	.85001	267
Q1.29	3.5655	.81712	267
Q1.30	3.5393	.80957	267

Frequency Tables: Section 2 – Employee Productivity

Item Statistics

Item Statistics

		Std.					Std.	
	Mean	Deviation	N			Mean	Deviation	N
Q2.01	3.9738	.69590	267		Q2.01	3.9738	.69590	267
Q2.02	3.9251	.68962	267		Q2.02	3.9251	.68962	267
Q2.03	3.8577	.67331	267		Q2.03	3.8577	.67331	267
Q2.04	3.9026	.67017	267		Q2.04	3.9026	.67017	267
Q2.05	3.9513	.74179	267		Q2.05	3.9513	.74179	267
Q2.06	3.7341	.63755	267		Q2.06	3.7341	.63755	267
Q2.07	3.7341	.85866	267		Q2.07	3.7341	.85866	267
Q2.08	3.7079	.82538	267		Q2.08	3.7079	.82538	267
Q2.09	3.8052	.74054	267		Q2.09	3.8052	.74054	267
Q2.10	3.7303	.73214	267		Q2.10	3.7303	.73214	267
Q2. 11	3.6180	Unive83952	0267	Ior	Q2.W a.	S3i6180	nka82952	267
Q2.12	8539	Electr89249	T267	ses	Q2IIAs	seßtä§?	ns .80249	267
Q2.13	3.8427	www.77499	12.67c	:.lk	Q2.13	3.8427	.77409	267
Q2. 14	3.6067	.70366	267		Q2.14	3.6067	.70366	267
Q2.15	3.7603	.80098	267		Q2.15	3.7603	.80098	267
Q2.16	3.8127	.79149	267		Q2.16	3.8127	.79149	267
Q2.17	3.8951	.79250	267		Q2.17	3.8951	.79250	267
Q2.18	3.8727	.62429	267		Q2.18	3.8727	.62429	267
Q2.19	3.8614	.76550	267		Q2.19	3.8614	.76550	267
Q2.20	3.6554	.98160	267		Q2.20	3.6554	.98160	267
Q2.21	3.5243	.97061	267		Q2.21	3.5243	.97061	267
Q2.22	3.8914	.89663	267		Q2.22	3.8914	.89663	267

Frequency Tables: Section 3 – Line management activities

Item Statistics

	Mean	Std. Deviation	N
Q3.01	3.3333	.87860	267
Q3.02	3.5693	.77912	267
Q3.03	3.5993	.85427	267
Q3.04	3.3596	.97233	267
Q3.05	3.3296	.95971	267
Q3.06	3.2210	1.02957	267
Q3.07	2.9588	1.03790	267
Q3.08	3.1798	.94465	267
Q3.09	3.3745	.90642	267
Q3.10	2.8240	1.03823	267
Q3.11c	3.5169	Toratu86857	Sri T 267



	Q3.10	2.8240	1.03823	267	
U	Rivers	ity35168	Ioratu ⁸⁶⁸⁵⁷	Sri L <mark>267</mark> ka	a.
E	88th21	nic ^{2.} 7940	ses & £ £6507	ertati ²⁶ 7s	
w	Q3,13 ₁₁	0.13.4906	.lk .91505	267	
	Q3.14	3.2921	.92015	267	
	Q3.15	2.9513	1.39058	267	
	Q3.16	3.4757	.85969	267	

APPENDIX E: Survey 3 – Employee Productivity in the Sri Lankan Software Industry

A Study on the Value of Motivation Strategies and Practices for the Productivity Improvement in the Sri Lankan Software Industry

Dear Sir/Madam.

I am a postgraduate student of University of Moratuwa, engaged in a research on "A Study on the Value of Motivation Strategies and Practices for the Productivity Improvement in the Sri Lankan Software Industry" as a partial fulfillment of the Master of Business Administration degree program.

Software companies invest more on employee motivation to improve their productivity. This research is very important to identify the real effectiveness of those motivation strategies and practices in real working environment in the Sri Lankan software industry.

University of Moratuwa, Sri Lanka. This questionnaire is a part of the research study. I would really appreciate if you could spend few minutes of your precious time to fill the questionnaire and be a part of this valuable research in Sri Danka Cinformation in this questionnaire will remain completely confidential and be used solely for the academic purposes. Further, I am not requesting you to provide your name, company name etc, as I want to assure your anonymity.

Thank You!

K.K. Sonal Jayawardene

Instructions:

This survey is to be mainly filled by the Professionals who are aware about organizational Business strategy and Management Practices on employee productivity.

SECTION 1: Internal process perspective - Productivity in the Internal Process

Please click to rank your perception on the productivity of the employees under each category regarding their work in your company.

1.0 How do you feel the productivity of the employees in your organization on the Internal Processes?

Question No	Electronic Theses & www.lib.mrt.ac.lk	Strongly III	a, S	Neutra 1.1	Disagrafia Disagrafia	Strongty, Disagree
1.1	Employees are always maintaining high level of accuracy in their work.					
1.2	They are always able to produce useful and effective work.					
1.3	Quality of their work is very good.					
1.4	They are capable of finding creative solutions for given problems.					
1.5	Employees are always achieving their work related goals effectively.					
1.6	At an overall level their Productivity in the Internal processes is very high.					

SECTION 2 : Customer perspective - Productivity on Customers

2.0 How do you feel the productivity of the employees in your organization on customers such as customer support efficiency and customer satisfaction etc.?

Question No	Category niversity of Morate Electronic Theses &	Strongly Agree	a,es.se	Neutral.	Disagree	Strongly Disagree
2.1	Employees are very efficient in customer support such as average time spent answering emails, answering phone calls, or handling complaint/comment letters etc.					
2.2	They are able to build good customer relationships regarding the work.					
2.3	They are able to maintain better customer satisfaction on the work done.					
2.4	At an overall level employees' productivity is very high on customers.					

SECTION 3 : Financial perspective - Financial impact of the Productivity

3.0 How do you feel the productivity of the employees in financial perspective such as cost effectiveness and timeliness etc.?

Question No	Categoryniversity of Morat Electronic Theses &	Strongly	a.ise	Disagree	Strongly Disagree
3.1	Very often employees can save time for a given task by resolving it faster. WWW.110.mrt.ac.lk				
3.2	They are able to reduce the waste such as reducing rework, faults etc.				
3.3	They always meet the target time such as schedule time/deliveries etc.				
3.4	At an overall level employees' productivity from a financial perspective is very high.				

SECTION 4 : Learning and growth perspective - Better Education and Growth

4.0 How do you feel the productivity of the employees in Learning and growth perspective such as Implementation speed, Knowledge gain and Flexibility etc.?

Question No	University of Morat Gategorylectronic Theses & www.lib.mrt.ac.lk	000	ri]	Disagree C	Stro be lly Y Disagree
4.1	Employees speed up their implementations by fast applying what they have learned to take on new and more challenging tasks.				
4.2	Their knowledge gaining ability and skills level is are very high.				
4.3	They are flexible to work on any given task or responsibility.				
4.4	At an overall level employees' productivity on learning and growth perspective are very high.				

SECTION 5 : Overall consideration

This section is about the overall consideration on the employees.

Question No	Category niversity of Morat	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5.1	Employees' commitment is very high toward their organization SCS	中	LSSC	rta	1101	15
5.2	They are very loyal to their organization www.lib.mrt.ac.lk					
5.3	They are very motivated to work in this organization.					
5.4	At an overall level their productivity is very good in respective of their work.					

SECTION 6 : General Information

Following information will be collected to describe the overall survey sample and this information will not be used to identify specific respondents.

6.1 What is your current designation in the organization?

Group Manger		Unive	nsi1	y of Moratuwa, Sri Lanka
Project Manager		Electr	oni	c Theses & Dissertations
HR Manager		www.	lib.	mrt.ac.lk
Tech Lead/ Front Li	ne Manager			
Software Architect				
Senior Software Eng	gineer			
Software Engineer				
Senior Quality Assu	rance Engineer			
Quality Assurance E	Engineer			
Any Other (Please S	pecify):		1	

6.2 Years of experience in current O	rganization	
Less Than 1		
1-3		
3-5		
5-10		
More than 10	University	of Moratuwa, Sri Lanka.
		Theses & Dissertations
6.3 Years of experience in the indust	rwww.lib.n	nrt.ac.lk
Less Than 1		
1-3		
3-5		
5-10		

More than 10

Thank you for your participation.



End of the Survey.

APPENDIX F: Reliability and Factor Analysis of Survey 3

Reliability analysis: Employee Productivity

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.855	.850	22

Factor analysis: Employee Productivity

University of Moratuwa, Sri Lanka communalities Electronic Theses & Dissertations

A COLUMN		111	11
	Initial	Extraction	.ac.lk
Q11.01	1.000	.919	
Q11.02	1.000	.759	
Q11.03	1.000	.859	
Q11.04	1.000	.597	
Q11.05	1.000	.869	
Q11.06	1.000	.714	
Q11.07	1.000	.692	
Q11.08	1.000	.707	
Q11.09	1.000	.750	
Q11.10	1.000	.799	
Q11.11	1.000	.886	

Extraction Method: Principal Component Analysis.

	Initial	Extraction
Q11.12	1.000	.710
Q11.13	1.000	.668
Q11.14	1.000	.806
Q11.15	1.000	.628
Q11.16	1.000	.830
Q11.17	1.000	.796
Q11.18	1.000	.860
Q11.19	1.000	.895
Q11.20	1.000	.862
Q11.21	1.000	.883
Q11.22	1.000	.941

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component					
	1 2 3 4		5	6		
Q11.01	.553	.441	.343	.290	310	347
Q11.02	.441	.651	324	.138	128	.030
Q11.03	.493	.351	249	.410	097	503
Q11.04	.497	.513	178	060	.210	087
Q11.05	.287	.287	694	279	291	.243
Q11.06	.517	.422	.247	281	352	069
Q11.07	.496	.239	.285	552	.059	029
Q11.08	050	.557	.291	191	.154	.499
Q11.09	188	.603	133	.445	.366	.034
Q11.10	022	.497	647	.113	.044	.344
Q11.11	.369	.058	.043	.412	.758	.018
Q11.12	.098	197	.720	.345	139	.074
Q11,13	Unive	rsity.393	Moratu	wa, . 176	Lanka ₃	.174
Q11.14	Electr	onic 167	eses 573	Dissert	ations 144	.308
Q11.15	W W.319	11b.mrt	ac.lk	.350	565	.288
Q11.16	.661	.297	.271	390	.167	229
Q11.17	.735	362	351	.012	.024	004
Q11.18	.785	394	027	.143	.009	.259
Q11.19	.854	322	012	.105	.113	.193
Q11.20	.855	257	210	.076	113	047
Q11.21	.858	178	100	246	.206	049
Q11.22	.844	445	062	044	.135	.080

Extraction Method: Principal Component Analysis.

a. 6 components extracted.

APPENDIX G: Descriptive Statistics of Survey 3

Employee Productivity - Item Statistics

		Std.		ĺ			Std.	
	Mean	Deviation	N			Mean	Deviation	N
Q11.1	3.6500	.81273	20		Q11.12	3.7000	.80131	20
Q11.2	3.8000	.61559	20		Q11.13	4.1500	.67082	20
Q11.3	3.2500	.91047	20		Q11.14	3.7500	.55012	20
Q11.4	3.7500	.55012	20		Q11.15	3.6500	.87509	20
Q11.5	3.9500	.60481	20		Q11.16	4.1000	.71818	20
Q11.6	3.9000	.64072	20		Q11.17	3.6500	.93330	20
Q11.7	3.9500	.68633	20		Q11.18	3.8000	.61559	20
Q11.8	4.0500	.60481	20		Q11.19	3.6500	.67082	20
Q11.9	4.0500	.51042	20	/ 4	Q11.20	3.4500	.82558	20
Q11.10	3.9000	11 versity .44721	OI 20	10ratu	Q11.21	3,7500	.63867	20
Q11.11	3.5500	ectron1c .68633	The 20	ses & I	Q11.22	3.4500	.99868	20