



# **MOTIVATING BLUE COLLAR WORKFORCE TOWARDS CONSTRUCTION INDUSTRY**

BY

S P Wijewickreme

Supervised by

Dr. L. L. EKANAYAKE

The Dissertation was submitted to the Department of Civil Engineering of the University of Moratuwa in partial fulfillment of the requirement for the Degree of Master of Science in Construction Project Management.

DEPARTMENT OF CIVIL ENGINEERING  
UNIVERSITY OF MORATUWA  
MORATUWA SRI LANKA

2010

94866



## Abstract

The fundamental purpose of this study is to recognise the reasons for scarcity of the Blue Collar Workforce in construction industry today and highlight its impact, and to forward my recommendations with an intention of resolving the issue.

As a Construction Professional, my great concern is, what will happen to the industry, if we keep on neglecting the people who brings the desires of clients, blended with innovativeness of architects, strengthened by engineers, enumerated by quantity surveyors, documented by contract administrators into reality according to the sequence of planning engineers, performed by builders and contractors, if no proper Blue Collar Workforce is available.

Professionals such as client advisors, architects, engineers, quantity surveyors, planning engineers, contract administrators, builders, contractors etc. are working towards the future of the industry. Series of professional bodies are supporting them to develop their career status stanchion with professional development programmes, seminars, exhibitions, award ceremonies, annual general meetings, day outings, dinners and so on.

Although there are thousands of Research Papers available in various means of publishing, I was unable to locate a single article addressing how to motivate people towards the core layer of the Construction Industry or to discuss the problems they are being experienced by the foundation layer of the industry.

Hence, I have selected 'Motivating Blue Collar Workforce towards Construction Industry' as my research project for partial fulfillment of the requirement for the Degree of Master of Science in Construction Project Management at the Faculty of Civil Engineering, University of Moratuwa, Sri Lanka.

## A Worker Reads History

Who built the seven gates of Thebes?  
The books are filled with names of kings.  
Was it the kings who hauled the craggy blocks of stone?  
And Babylon, so many times destroyed.  
Who built the city up each time? In which of Lima's houses,  
That city glittering with gold, lived those who built it?  
In the evening when the Chinese wall was finished  
Where did the masons go? Imperial Rome  
Is full of arcs of triumph. Who reared them up? Over whom  
Did the Caesars triumph? Byzantium lives in song,  
Were all her dwellings palaces? And even in Atlantis of the legend  
The night the seas rushed in,  
The drowning men still bellowed for their slaves.

Young Alexander conquered India.

He alone?

Caesar beat the Gauls.

Was there not a cook in his army?

Phillip of Spain wept as his fleet  
was sunk and destroyed. Were there no other tears?

Frederick the Greek triumphed in the Seven Years War.

Who triumphed with him?

Each page a victory

At whose expense the victory ball?

Every ten years a great man,

Who paid the piper?

So many particulars.

So many questions.

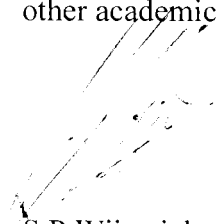
### Bertolt Brecht (1898 - 1956)



*Eugen Berthold Friedrich Brecht* is a German poet, playwright and theatre director. An influential theatre practitioner of the 20th century, Brecht made equally significant contributions to dramaturgy and theatrical production, the latter particularly through the seismic impact of the tours undertaken by the Berliner Ensemble, the post war theatre company operated by Brecht and his wife and long time collaborator, the actress Helene Weigel with its internationally acclaimed productions.

## **Declaration**


I hereby certify that the research dissertation entitled “Motivating Blue Collar Workforce towards Construction Industry” submitted by me in partial fulfillment of the requirements of MSc in Construction Project Management at the University of Moratuwa, is my original work and that it has not previously formed the basis of any other academic qualification at any other institution.

  
S P Wijewickreme

25 January 2010

I certify the above Statement.

***UOM Verified Signature*** University of Moratuwa, Sri Lanka.

Dr L L Ekanayake 

Research Supervisor

25 January 2010

Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)



## **Acknowledgement**

It is of great pleasure for me to offer my sincere gratitude to all individuals who involved and helped me in various ways, to make this research a success. However, many names always remain in my mind and deserve my gratitude.

I would like to thank Dr Asoka Perera, the Course Coordinator, Dr L Ekanayake, the Supervisor, Dr Rangika Halwathura, Senior Lecturer of Department Civil Engineering and Mrs. Kokila Abeykoon, Senior Lecturer, Department of Textile Engineering at University of Moratuwa for giving me kind cooperation and guidance to make this MSc and the research a success.

Additionally, I place my graceful gratitude for all the professionals and the Blue Collar Workforce, working in different organizations who contributed to this research by fulfilling data collecting requirements.

Finally, I like to thank all my classmates of MSc in Construction Project Management at University of Moratuwa (Intake 2008/09), my employer M/s Tudawe Brothers and my family members who helped me in many ways to make this research a success.

S P Wijewickreme  
Department of Civil Engineering  
University of Moratuwa

25 January 2010

## Table of Contents

	<b>Page</b>
A Worker Reads History.....	i
Declaration .....	ii
Abstract .....	iii
Acknowledgement .....	iv
Table of Contents.....	v
List of Figures.....	viii
List of Tables .....	ix
Abbreviations.....	x
<b>Chapter 1 - Introduction.....</b>	<b>1</b>
1.1 Research Background.....	1
1.2 Research Problem.....	4
1.3 Objective of the Study.....	5
1.4 Significance of the Study.....	6
1.5 Research Methodology.....	8
1.6 Scope Limitations.....	9
1.7 Key Findings .....	10
1.8 Chapter Summary.....	10
<b>Chapter 2 - Literature Review .....</b>	<b>12</b>
2.1 Various Collar Categories.....	12
2.1.1 Black Collar Workers.....	13
2.1.2 Blue Collar Workers.....	13
2.1.3 Dog Collar Workers .....	14
2.1.4 Frayed Collar Workers .....	14
2.1.5 Fuel Collar Workers .....	14
2.1.6 Gold Collar Workers .....	14
2.1.7 Green Collar Workers.....	15
2.1.8 Gray Collar Workers .....	16
2.1.9 Light Blue Collar Workers .....	16
2.1.10 No Collar Workers .....	16
2.1.11 Open Collar Workers.....	17
2.1.12 Pink Collar Workers.....	17
2.1.13 Red Collar Workers.....	17
2.1.14 Scarlet Collar Workers .....	18
2.1.15 Silver Collar Workers.....	18
2.1.16 Steel Collar Workers .....	18
2.1.17 White Collar Workers.....	18
2.1.18 Yellow Collar Workers.....	19
2.2 Various Types of Management Requirement.....	19
2.3 Human Relations and Social Psychological Theories .....	20
2.4 A H Maslow ‘A Theory of Human Motivation’.....	20

2.4.1	Analysis of ‘A Theory of Human Motivation’ .....	21
2.4.1.1	Physiological Needs .....	22
2.4.1.2	Safety Needs .....	22
2.4.1.3	Social Needs .....	23
2.4.1.4	Esteem Needs .....	23
2.4.1.5	Self-Actualization.....	24
2.5	Human Behavior and Information Technology .....	24
2.6	Innovative Behavior .....	25
2.7	Leadership .....	25
2.8	Leader Member Exchange (LMX) theory of leadership .....	25
2.9	Relative Solutions from Cuban Context.....	26
2.9.1	Technical training.....	26
2.9.2	Value orientation training.....	26
2.9.3	Training as an incentive scheme.....	27
2.9.4	Training for professional development.....	28
2.10	Motivational Management.....	28
2.10.1	Traditional Motivation Theories.....	29
2.10.1.1	Theory X.....	30
2.10.1.2	Theory Y.....	30
2.10.1.3	Theory Z or Maslow’s Hierarchy of Needs.....	30
2.10.1.4	Hygiene Motivation Theory .....	30
2.10.2	Modern Motivational Theories.....	31
2.10.3	Putting Theory into Practice.....	31
2.10.3.1	Treat Employers with Respect.....	32
2.10.3.2	Use good two way Communication.....	33
2.10.3.3	Have high expectations.....	33
2.10.3.4	Use positive reinforcement.....	33
2.10.3.5	Employ Effective Discipline and Punishment.....	34
2.10.3.6	Treat all Fairly .....	34
2.10.3.7	Set work related Goals.....	34
2.10.3.8	Satisfy Employee Needs.....	35
2.10.3.9	Restructure Jobs When Possible.....	35
2.10.3.10	Base Rewards on Job Performance. ....	35
<b>Chapter 3 - Methodology .....</b>		<b>36</b>
3.1	Preliminary Informal Surveys .....	36
3.2	Non Structured Discussions .....	36
3.3	Questionnaire Survey .....	38
3.4	Sample Selection .....	40
3.5	Determination of Sample Size .....	42
3.6	Questionnaire Distribution .....	43
3.7	Identification of Key Factors.....	43
3.8	Methodology of Data Analysis.....	44
3.9	Relative Important Index (RII).....	44

<b>Chapter 4 - Analysis and Discussions of Results .....</b>	<b>46</b>	
4.1	Questionnaire Survey .....	46
4.2	Data Analysis .....	47
4.2.1	Demographic Characteristics.....	47
4.2.1.1	Demographic Characteristics of ‘Gender Balance’ .....	48
4.2.1.2	Demographic Characteristics of ‘Age Variations’ .....	49
4.2.1.3	Demographic Characteristics of ‘Experience Variations’ .....	50
4.2.2	Difficult areas of Customer Satisfaction .....	51
4.2.3	Critical Resources Requirements under ‘Construction 6M Concept’ .....	51
4.2.4	Recruitment Modes of Blue Collar Workforce .....	52
4.2.5	Behavioral Problems of Blue Collar Workforce .....	52
4.2.6	Difficulties experienced by Blue Collar Workforce.....	53
4.2.7	Comparative Analysis from different Points of View .....	55
4.3	Discussion of Results .....	56
4.3.1	Poor retirement benefits .....	56
4.3.2	Temporary nature of the occupation.....	57
4.3.3	Lack of social recognition .....	58
4.3.4	Gray areas in career development .....	58
4.3.5	Dissimilarities in salary scales.....	59
4.3.6	Non-availability of recreation facilities.....	59
4.4	Legal System of Sri Lanka & Ball Passing Technique .....	60
4.4.1	EPF and ETF .....	60
4.4.2	Cascade Effects of Risks & Taxes.....	60
4.4.2	Trade Unions .....	61
4.5	Proposed Models .....	62
4.5.1	Modified Hierarchy of Human Needs .....	62
4.5.2	Concept of ‘Building Forces’ .....	63
<b>Chapter 5 - Conclusions and Recommendations.....</b>	<b>65</b>	
5.1	Conclusion.....	65
5.2	Future Research Areas.....	67
5.2.1	Negative Factors for Stakeholder Satisfaction .....	67
5.2.2	Education System of Sri Lanka .....	67
References.....	68	
Appendices.....	70	

**List of Figures**

	<b>Page</b>
Figure 1 : Construction 6M Concept .....	3
Figure 2 : Causes for Stakeholder Dissatisfaction .....	4
Figure 3 : Research Flow Chart .....	8
Figure 4 : Hierarchy of Human Needs.....	21
Figure 5 : Supply of Goods and Services, 2008 .....	41
Figure 6 : Gender Balance of Directors, Managers and Technical Staff.....	48
Figure 7 : Gender Balance of Blue Collar Workforce .....	48
Figure 8 : Age Variations of Directors, Managers and Technical Staff .....	49
Figure 9 : Age Variations of Blue Collar Workforce .....	49
Figure 10 : Experience Variations of Management Staff .....	50
Figure 11 : Experience Variations of Blue Collar Workforce .....	50
Figure 12 : Difficult areas of Customer Satisfaction .....	51
Figure 13 : Critical Resources Requirements under ‘Construction 6M Concept’ ..	51
Figure 14 : Recruitment Modes of Blue Collar Workforce .....	52
Figure 15 : Behavioral Problems of Blue Collar Workforce .....	53
Figure 16 : Difficulties of Blue Collar Workforce (Management View) .....	54
Figure 17 : Difficulties of Blue Collar Workforce (Self-Review).....	54
Figure 18 : Cascade effect on Risk and Tax Multiplication .....	61
Figure 19 : Modified Hierarchy of Human Needs .....	62

**List of Tables**

	<b>Page</b>
Table 1 : Unemployment in Sri Lanka .....	5
Table 2 : Ranking of causes of project delays,.....	7
Table 3 : Collar Categories.....	12
Table 4 : Examples for Basic Human Needs.....	22
Table 5 : Questionnaire Design Matrix .....	39
Table 6 : Head Count of Constriction Employers .....	40
Table 7 : Number of Blue Collar Workforce, 2008 .....	40
Table 8 : Sample Size for Given Population .....	42
Table 9 : Questionnaire Distribution Table.....	43
Table 10 : Demographic Characteristics of the respondents.....	47
Table 11 : Ranking of Behavioral Problems of Blue Collar Workforce.....	52
Table 12 : Comparative analysis of Relative Importance Index .....	55
Table 13 : Similarity Table between Construction Industry Military Forces .....	63
Table 14 : Difficulties between Construction and Military employers.....	64



Electronic Theses & Dissertations  
www.lib.mrt.ac.lk

## **Abbreviations**

CBSL - Central Bank of Sri Lanka

CIOB - Chartered Institute of Building

EPF - Employers Provident Fund

ETF - Employers Trust Fund

FIDIC - International Federation of Consulting Engineers

HRD - Human Resources Development

ICTAD - Institute of Construction Training and Development

IESL - Institute of Engineers, Sri Lanka

IQS (SL) - Institute of Quantity Surveyors, Sri Lanka

JICA - Japan International Corporation Agency

NAB - National Apprenticeship Board of Sri Lanka

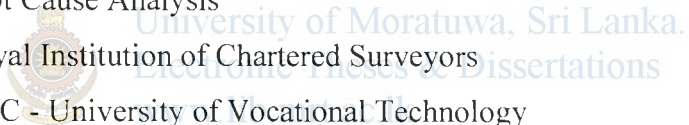
NGO - Non-Governmental Organizations

PMBOK - Project Management Body of Knowledge

RCA - Root Cause Analysis

RICS - Royal Institution of Chartered Surveyors

UNIVOTEC - University of Vocational Technology



## Chapter 1 - Introduction

### 1.1 Research Background

Construction sector is the second president human requirement out of three, namely food, shelter and clothing.

Fundamental theme of the construction industry is to provide secured, long lasting and trouble free setup for relaxing when in need for the human being. This setup can be in any form of construction, which can be termed as shelter in common.

*“Construction projects can be best understood in the context of the whole industry. Technological complexity ranges from the familiar, well known materials and trades through to highly complex facilities involving multiple interacting sub systems. Regardless of its technological complexity, any reasonably sized project involves a high level of organisational complexity. This arises because there are many specialised skills and provisions with a useful contribution to the process. Most who study the industry do so from the point of view of the profession to which they aspire. Because of this, there are many different descriptions of the construction industry, drawn from different specialist disciplines. This vagueness is compounded by the fact that construction involves such a wide range of activity that the industry’s external boundaries are also unclear. The term ‘construction’ can include the erection, repair and demolition of things as diverse as houses, offices, shops, dams, bridges, motorways, home extensions, chimneys, factories and airports; thus the industry (and issues that effects construction projects) are difficult to comprehend fully because:*

- *The relationships between the parts are not always clear.*
- *The boundary of the industry is unclear.”*

(John Murdoch, 1992)

The industry in which putting up of a shelter for living or any other structure that facilitates better quality of living for human beings can be called as a construction industry. Furthermore, demolition of any previously put up structure can be considered as an element of the construction industry as well.



Because of the complex nature of the construction industry, it always demands for systematic approach of procuring from its inception to completion, which is called as Construction Project Management. As described in the *Project Management Context* (PMBOK, 2004) fundamental objectives of the *Stakeholders* (PMBOK, 2004) of any construction project are:

1. Time
2. Cost
3. Quality

However, customer satisfaction is an important element of any industry. In order to satisfy any construction customer, following requirements cannot be ignored even though they are not among the grouping of fundamental requirements.

1. Aesthetics
2. Flexibility
3. Confidentiality
4. Transparency & accountability
5. Individual requirements

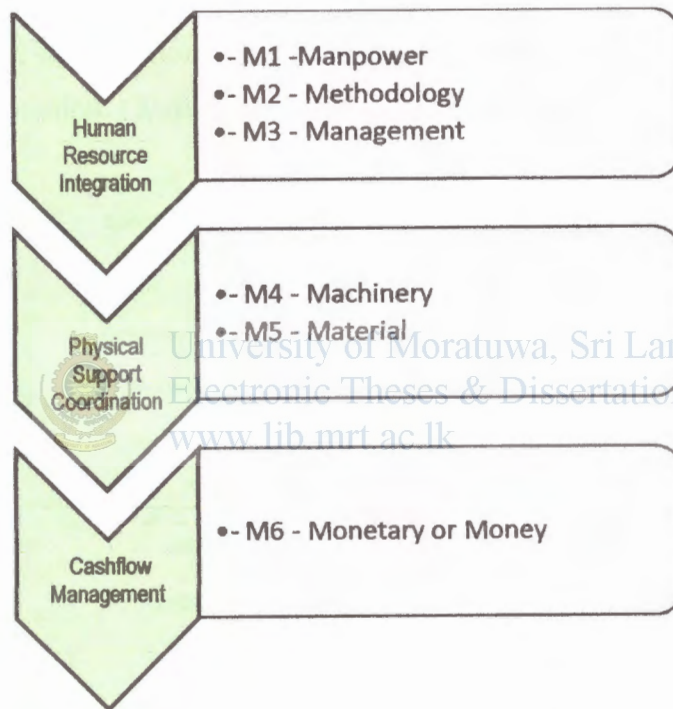
Furthermore, there are External Negative Factors, which may leads to stakeholder dissatisfaction such as

1. Social Impact
2. Environmental Effects
3. Political Influences

In this research, it has been understood that many *Construction Projects* (PMBOK, 2004) are experiencing customer dissatisfaction in various areas, scales and impacts. Since management is a process of planning, organizing, directing and controlling of an organization's recourses to achieve organizational goals in effective and efficient manner, it has been noticed that fundamental problem could be further observed in depth.

4M's of Management (Stoner, 1999) was introduced only for Money, Man, Machine and Materials. Later 'Market' or 'Methodology' was added to it by various professionals (Answers.Com, 2004) developing it as 5M's. However, nobody had recognised 'Management' as an essential ingredient of the construction industry.

Accordingly, the major and widely experiencing problems in the construction industry was further subdivided and analysed as depicted in 'Construction 6M Concept' (Wijewickreme, 2010) in the (Figure 1) below.



**Figure 1 : Construction 6M Concept (Wijewickreme, 2010)**

In order to understand the low participation of Blue Collar Workforce in construction trades, it is necessary to understand their satisfaction related to construction work. Satisfaction of Blue Collar Workforce working in other trades can be different from majority of the construction workers and this issue is not addressed in the industry.

Accordingly, "Motivating Blue Collar Workforce towards Construction Industry" and identifying the needs unique to them was selected as topic of the Research Thesis.

## 1.2 Research Problem

Various factors are linked with the selected research problem. For the purpose of streamlining and isolating of fundamental path of research, 'Causes for Stakeholder Dissatisfaction' as illustrated in

Figure 2, describes how various factors might be linked to potential problems.

Despite development in the Project Management concepts, Human Resources are still the key players in construction projects. They determine the success or the failure of any project; they define project goal, they plan & organize, direct, coordinate and monitor project activities. They also meet project goals and objectives by using interpersonal and organizational skills such as communication, delegation, decision making and negotiation. (Wellington Didibhuku Thwala, 2008)

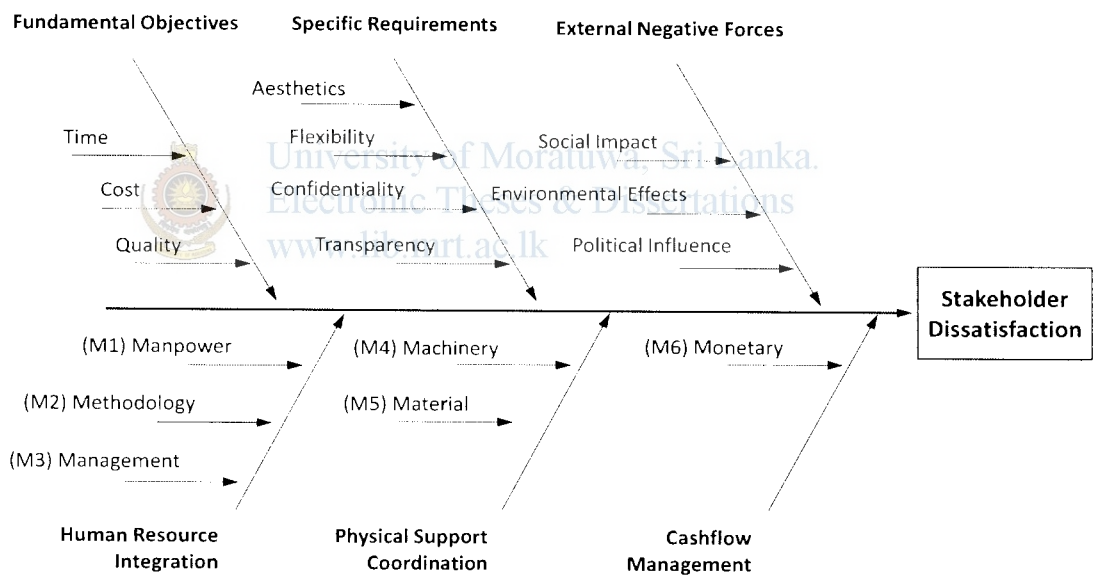


Figure 2 : Causes for Stakeholder Dissatisfaction (Wijewickreme, 2010)

According to the preliminary research survey, inability to find dependable source of human resources or 'Poor Human Resources Integration' is recognised as the most effective path of impact. In depth analysis of the spotted area of research indicated that, 'M1 - Manpower' has become today's master challenge in construction industry irrespective of its List Position M1. Most of the projects suffered and are suffering from various human resources difficulties for over decades and still no proper solution has been found for the problem other than living with the problem.

### 1.3 Objective of the Study

Unemployment of the youth of the country is a general area of concern, which provides very popular political stage for discussions and always the ruling party is held responsible. According to the information given in the official website of the Department of Census and Statistics Sri Lanka, (DCSL, 2000) and the website of 'Index Mundi' (CIA World Factbook, 2003), estimated unemployment of Sri Lanka in year 2009 is 5.2% of the national population as described in

Table 1.

**Table 1 : Unemployment in Sri Lanka**

Source: (Various)

<b>Year</b>	<b>Unemployed Population</b>	<b>Unemployment Percentage</b>	<b>Remarks</b>
2003	1,620,000	8.10 %	
2004	1,620,000	8.10 %	
2005	1,440,000	7.20 %	
2006	1,300,000	6.50 %	
2007	1,200,000	6.00 %	
2008	1,200,000	6.00 %	Estimated
2009	1,040,000	5.20 %	Estimated

The fundamental objective of the construction industry is to 'Improve the quality of people's lives'. As in order to achieve the aspirations described in Section 1.2 of this report, human resources play a major role in construction industry (Wellington Didibhuku Thwala, 2008). Therefore, procuring required Blue Collar Workforce has become the major problem in Sri Lankan Construction Industry today.

In a country with 5.2% of unemployment, one industrial sector is suffering from shortage of required human resources. This situation emphasizes a need of proper research to identify the cause of the problem and provide solutions for the survival of the industry.

It has to be a collective responsibility from Directors to the Blue Collar workforce of construction industry to safeguard and upgrade the service of the industry.

#### 1.4 Significance of the Study

As explained in the ‘Construction Project Management Body of Knowledge’ (PMBOK, 2004), a project means a *temporary*<sup>1</sup> endeavor which undertakes to create a *unique*<sup>2</sup> product, service or result (PMBOK, 2004). Hence, almost all the construction projects have basic Project Managements characteristics such as;

- Project Management Framework
- Project Lifecycle and Organisation
- Project Management Knowledge Areas
  - Integration Management
  - Scope Management
  - Time Management
  - Cost Management
  - Quality Management
  - Human Resource Management
  - Communication Management
  - Risk Management
  - Procurement Management



University of Moratuwa, Sri Lanka.  
Theses & Dissertations  
www.library.usl.lk

While achieving the requirements of Construction Project Management, several researches were carried out to identify and rank the impact of various knowledge areas listed above.

As discussed in the recent research on ‘Causes and Effects on Delays in Medium Scale Building Construction Projects in Sri Lanka’ (Samarakoon, 2009), Cause of Effect areas Table 2 were identified as high impact areas. Further, ‘Top of the rank for Causes and Effects’ is for, ‘Improper Project Management’ which require further analyzing to identify the Root Cause. Every time when management fails, reason for the failure is either lack of resources or resource coordination which comprises a Root Cause Analysis (RCA).

---

<sup>1</sup> Temporary means that every project has a definite beginning and a definite end.

<sup>2</sup> A project creates exclusive deliverables, which may be products, services or results.

**Table 2 : Ranking of causes of project delays,**

Source: (Samarakoon, 2009)

	<b><u>Causes or Effects</u></b>	<b><u>Relationship</u></b>
1	Improper project management done by contractor	Contractor related
2	Shortage of labor	Other
3	Improper planning by the contractor	Contractor related
4	Financial Problems of clients	Client Related
5	Poor contract management done by the consultant	Consultant Related
6	Client changes their original scope	Client Related
7	Weather conditions	Other
8	Shortage of equipment	Other
9	Delays in preparation of drawings by the consultant	Consultant Related
10	Shortage of materials at the market	Other
11	Lack of communication within parties involved	Other
12	Consultants delays in approvals	Consultant Related
13	Improper construction methods used by the contractor	Contractor related
14	Slow decision making of client	Client Related
15	Consultants delays in inspections	Consultant Related
16	Owner interference for project	Client Related
17	Unrealistic Contract duration proposed by client	Client Related
18	Unforeseen site conditions	Other
19	Inadequate experience of the contractor	Contractor related
20	Errors done by contractor during construction	Contractor related
21	Contractor's discrepancies with clients	Contractor related
22	Disputes	Other
23	Lack of quality assurance by the consultant	Consultant Related
24	Regulatory changes during the construction	Other

In addition, 'Top of the rank of Causes and Effects' varies between the Employer, the Engineer & the Contractor, but second rank remains constant as 'Shortage of Labour' for all three parties. Accordingly, it can be concluded that there are significant reasons to carry out further research on 'Motivating Blue Collar Workforce towards Construction Industry'.



### 1.5 Research Methodology

Since this issue was recognised as a nationalized problem, it was important to carry out a survey and gather in depth details of the problem through proper cross sections of the society and industry. However, it was decided to conduct surveys in two stages.

Research Flow Chart shown in

Figure 3 illustrates how the research was designed and the flow path of the same until its completion against standard method of research survey.

1. Preliminary surveys to recognise the fundamental problem.
2. Secondary surveys to recognise and analyze the problem in depth with a view to find a solution.

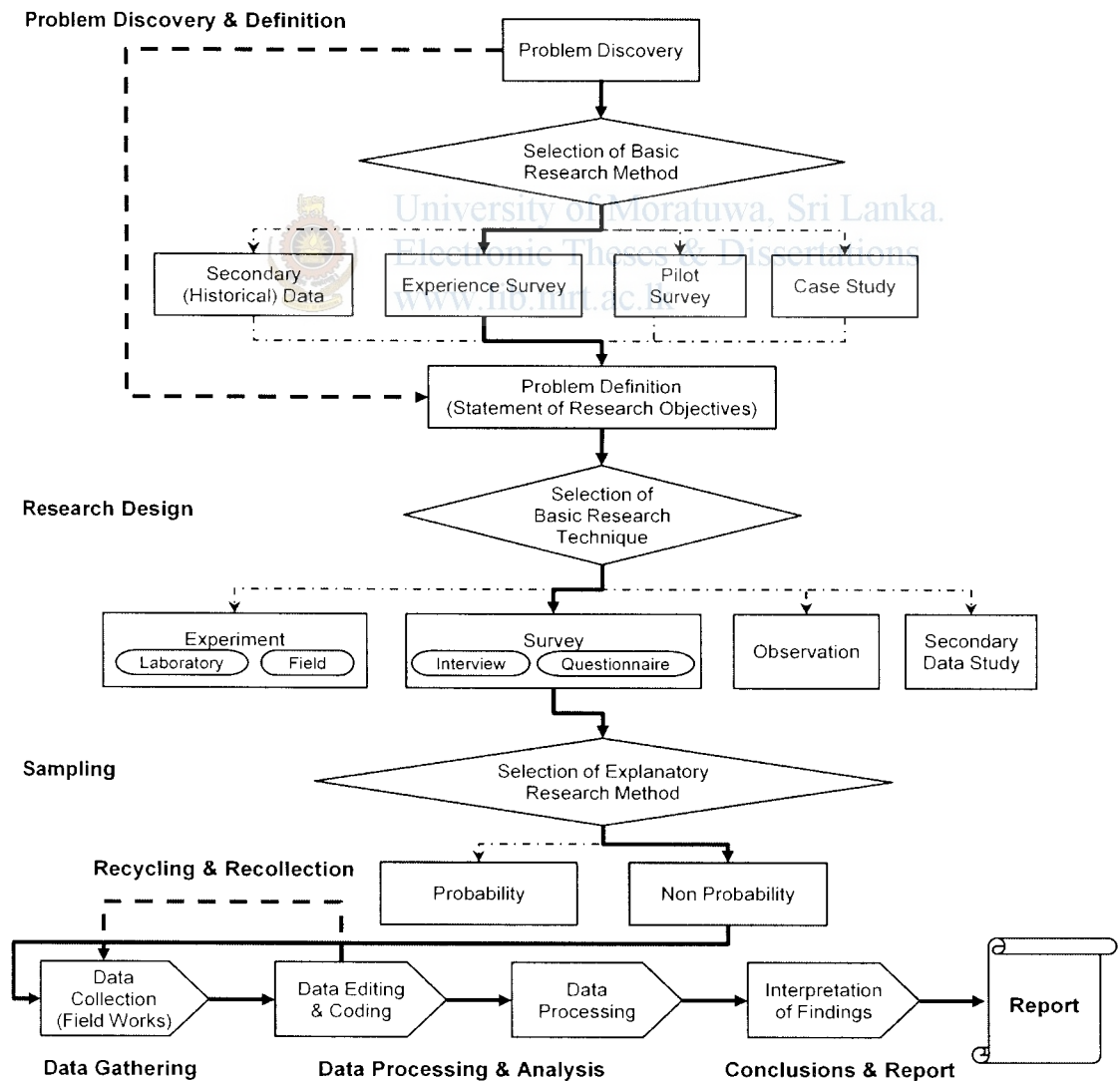


Figure 3 : Research Flow Chart

It was possible to categorize the research findings into a summarized set of forms which enables to recognize the real reasons behind the topic. Then such results can be used to improve the recruitment rate and development of the industry.

However, it is important to analyze the data, which is collected into a logical & analytical mode for future use with the intention that anyone else could utilise such data for further researches for the betterment of the industry. Further, it was pre planned to collect data from a four dimensional way to obtain a better picture.

- I. Self appraisal of Blue Collar workers from their point of view
- II. From the view point of Immediate Supervisors
- III. From the view point of Project Managers
- IV. From the view point of Company Directors

Questionnaire survey was done preliminary for the purpose of preparing a analytical model. However, talking to people with down to earth attitudes was recognized at the very beginning as the key mode of recognizing the deep rooted problem.



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

However, it was pre noticed that talking to industry people has to be done with a very patient and enduring mentality because of the normal behavior of existing Blue Collar Worker Force is highly hesitant, and in a survey, they could create an additional problem to the person conducting the survey.

## **1.6 Scope Limitations**

Defining the parameters of this research was at a dilemma at its start. However, fencing was essential although the research area had no limits or a boundary. Hence, one single questionnaire or other types of traditional research paths appeared insufficient to measure this inherent problem of the construction industry.

Therefore, informal and none structured preliminary surveys while discussing with various people helped dramatically to get an inspiration to find the path in the dark.



The findings of this proposed research for ‘Motivating Blue Collar Workforce towards Construction Industry’ will enable me to address out more reasons for the root causes of this long term industry predicament. Once the root course is identified, the proposal of a comprehensive & reliable solution will not be difficult mode of operandi.

*“Fundamental requirement of any question is that it is understood.”*

(Lee, 2001)

## **1.7 Key Findings**

From my industry experience, I believe that ‘Motivating Blue Collar Workforce towards Construction Industry’ was neglected to a certain extent for a long period. General perception of the current society does not give attractive & positive attitude for the people who are working in the construction industry. Therefore, the numbers of escapees from industry were greater than the amount of people drawn to the industry.



University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations

A good recent example is that of one carpenter who had completed a four year course in joinery works at National Apprenticeship Board (NAB), earning handsome remuneration, left the industry to work for half of his income, to wear a tie and work in a burger outlet. When I questioned him for the reason, he had a simple answer; *‘My fiancé didn’t like my previous job’*.

His answer for the second question, *‘Why doesn’t she like it?’* gave me the absolute indication of the current problem. The answer was *‘Even if I work ‘hard’ and earn like an engineer, my designation ‘Wadda’ or ‘Baasa’ will remain same until I die. In a burger shop, if I work ‘smart’ but not ‘hard’, I can become a manager within the next five years’*.

## **1.8 Chapter Summary**

- Chapter 2 describes the theoretical background of the study. It is discusses about the past studies carried out to identify the causes and methods of motivation and its importance.

- Chapter 3 describes the methodology adopted to find the causes and effects of the difficulties experienced by the Blue Collar Workforce and behavioral problems of Blue Collar Workforce to the construction industry.
- Chapter 4 describes the methods of analysis and compares the findings of the causes and effects of the difficulties experienced and behavioral problems of Blue Collar Workforce to the construction industry in Sri Lanka against the management point of view on the same difficulties.
- Chapter 5 wraps up the summary of findings and conclusions of the research. It describes about main causes and effects of the difficulties experienced by the Blue Collar Workforce and behavioral problems of Blue Collar Workforce to the construction industry in Sri Lanka. Further, it recommends a Model to solve the problem to minimize the stakeholder dissatisfactions and to motivate the Blue Collar Workforce towards Construction Industry.



## Chapter 2 - Literature Review

### 2.1 Various Collar Categories

Construction workers are generally identified as ‘Blue Collar Workers’. However, identification of the other available collar categories and differentiation them from the general Blue Collar Workforce became an important requirement of this research.

Seventeen commonly available categories were identified & recognised during this study and they were listed in Table 3 according to the alphabetical order. All of the recognised color categories directly or indirectly representing the Construction Industry due to its Complex Nature (John Murdoch, 1992).

**Table 3 : Collar Categories**

Source: (Various)

	<b><u>Collar Colour</u></b>	<b><u>Year of Introduction</u></b>
1	Black Collar Workers -	1998
2	Blue Collar Workers -	Circa 19 <sup>th</sup> century
3	Dog Collar Workers -	1991
4	Frayed Collar Workers -	1995
5	Fuel Collar Workers -	Not Identifiable
6	Gold Collar Workers -	1985
7	Green Collar Workers -	1984
8	Grey Collar Workers -	1981
9	Light Blue Collar Workers -	Not Identifiable
10	No Collar Workers -	2008
11	Open Collar Workers -	1988
12	Pink Collar Workers -	1975
#	<i>Red Collar</i> <sup>3</sup> -	2009
13	Scarlet Collar Workers -	2000
14	Silver Collar Workers -	Not Identifiable
15	Steel Collar Workers -	1980
16	White-collar Workers -	1930
17	Yellow Collar Workers -	Not Identifiable

<sup>3</sup> A new collar category called ‘Red Collar’ is useful to introduce to acknowledge the workforce dealing with risky operations such as rigging, erecting, fire fighting, rescue operating and the like.

### 2.1.1 Black Collar Workers

Black Collar Workers appears as a subcategory of Blue Collar workforce and identifies the people who generally work in Coal mines etc. Black collar workers barely earn a subsistence wage as an unskilled laborer in coalmines or other labor intensive jobs.

### 2.1.2 Blue Collar Workers

Blue Collar Worker represent a member of the working class who performs manual labor and earns an hourly wage. It is considered as the oldest collar category and most of the other collar categories derived from 'Blue Collar' in order to recognise the varieties in job skills.

*The term 'blue collar' is derived from 19th century uniform dress codes of industrial workplaces. Industrial and manual workers wear durable clothing that can be dirty, soiled, or scrapped at work. A popular element of such clothes has been, and still is, a light or navy blue work shirt. Blue is also a popular color for coveralls, and will frequently include a name tag of the company or the establishment on one side, and the individual's name on the other. Often these items are bought by the company and laundered by the establishment as well.*

*The popularity of the color blue among persons who do manual labor is in contrast to the ubiquitous white dress shirt that, historically, has been standard attire in office environments. This obvious colour coding has been used to identify a difference in socio economic class. This distinction is growing more blurred, however, with the increasing importance of skilled labor, and the growth of none laboring, but low paying, service sector jobs. Blue collar can also be used as an adjective to describe the environment of the blue collar worker: for example, a blue collar neighborhood, job, restaurant, bar or a situation describing the use of manual effort and the strength required to do so.*

(Wikipedia Encyclopedia, 2003)

### 2.1.3 Dog Collar Workers

Dog Collar Worker is used to identify Priests and other clergymen. This is a new word and their duties are self explanatory.

### 2.1.4 Frayed Collar Workers

Frayed Collar Worker is termed as a nickname to signal employees who have trouble making habits and working poor.

### 2.1.5 Fuel Collar Workers

Fuel Collar Workers are identified as those who are in the travel industry or those either travel very regularly as part of their job, i.e. sales representatives, field officers, airline pilots, etc. They spend the bulk of their time on traveling.

### 2.1.6 Gold Collar Workers

Gold Collar Workers are considered as highly skilled professionals who may be in high demand, such as doctors and lawyers, aircraft engineers, planning engineers, contract engineers and the like.

*A Higher Level of Knowledge Work. Kelley (1990) described an old distinction that divided the work force into blue-collar and white-collar workers. Blue-collar workers typically did manual labor in a factory for hourly pay, whereas white-collar workers did knowledge work in an office on salary. However, changes in the nature of work and the workplace have led to large growth in the numbers of a particular kind of knowledge worker--the gold-collar worker, whose most valuable assets are problem-solving abilities, creativity, talent, and intelligence; who performs non repetitive and complex work that is difficult to evaluate; and who prefers self-management. The gold-collar worker is, for example, the computer engineer as opposed to a lower-level knowledge worker such as an input operator. Kelley pointed out that even though the name is new, there have always been gold-collar workers like designers, researchers, analysts, engineers, and lawyers.*

(Ericdigest, 2003)

### 2.1.7 Green Collar Workers

Green Collar Workers are the people who generally carry out environmentally friendly jobs. Following extract describes how the term was formed and the fundamental job description of the respective collar category.

*A green-collar worker is a worker who is employed in the environmental sectors of the economy. Environmental green-collar workers (or green jobs) satisfy the demand for green development. Generally, they implement environmentally conscious design, policy, and technology to improve conservation and sustainability.*

*Formal environmental regulations as well as informal social expectations are pushing many firms to seek professionals with expertise with environmental, energy efficiency, and clean renewable energy issues. They often seek to make their output more sustainable, and thus more favorable to public opinion, governmental regulation, and the Earth's ecology.*

*Green collar workers include professionals such as conservation movement workers, environmental consultants, environmental or biological systems engineers, green building architects, holistic passive solar building designers, solar energy and wind energy engineers and installers, nuclear engineers, green vehicle engineers, "green business" owners, organic farmers, environmental lawyers, ecology educators, and eco technology workers, and sales staff working with these services or products.*

*Green collar workers also include vocational or trade-level workers: electricians who install solar panels, plumbers who install solar water heaters, construction workers who build energy-efficient green buildings and wind power farms, construction workers who weatherize buildings to make them more energy efficient, or other workers involved in clean, renewable, sustainable future energy development.*

(Wikipedia Encyclopedia, 2003)

### 2.1.8 Gray Collar Workers

Gray Collar Workers are the skilled technicians, typically someone who is in between the white and blue collar, i.e., Information Technology workers. They are principally white collar, but perform Blue Collar tasks with some regularity.

A grey collar worker is not an internationally accepted norm. Although it is not widely used, it appears as prior to white collar category of highly skilled category whose next step is to the management category.

*'The city will need about 500,000 highly skilled technicians or "Gray Collar" workers, within the next five years, city officials told the first Shanghai International Forum on Vocational training over the weekend.'*

(People's Daily, 2003)

In traditional mode of company structure, a selected worker with better controlling abilities was promoted to the 'Grey Collar' category with a view to bring up to 'White Collar' category in a later stage. This is in line with the Self Actualization as explained in 'A Theory of Human Motivating' (Maslow, 1943).

This style of management system is very common in Sri Lankan Hotel Management structure. One good example is the story of maestro chef, recipe book author and director of Mount Lavenia Hotel Dr. Pabilis Silva (Silva, 2009). This prototype of training and promotion is further discussed in 'Hotel Management in Cuba and the transfer of best practices' (Julio Cervino, 2005).

### 2.1.9 Light Blue Collar Workers

Light Blue collar is used to classify temporary workers, whether or not they are working as a blue or white collar worker tasks. Light Blue is a combination of colours white and blue.

### 2.1.10 No Collar Workers

No Collar means unemployed but who are capable and in the working age. (Generally 18 to 63 years in UK but allowed up to 75 years for certain job categories.

### 2.1.11 Open Collar Workers

Open Collar employees are the category who work from home belongs to this category. Generally, sales representatives who work on commission basis and computer programmers operating from their homes can be cited as examples.

### 2.1.12 Pink Collar Workers

Pink Collar identifies females working as nurses, elementary teachers, secretarial, office administrative or other similar feminine duties.

*A pink collar worker is employed in a job that is considered to be, traditionally, a female occupation. These traditions, generally, refer back to the first half of the twentieth century, during the Industrial Revolution. The term is form formed by an analogy to Blue Collar Worker and White Collar Worker. These terms were commonly equated with men in the workforce with jobs that demanded more manual labor or a more educated worker respectively.*



University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations

*Pink collar occupations include; Babysitter, Cosmetologist, Flight attendant, Florist, Hairdresser, Maid, Nanny, Nurse, Receptionist, Secretary, Waitress, Librarian and Elementary Teachers.*

(Wikipedia Encyclopedia, 2003)

### 2.1.13 Red Collar Workers

Construction industry usually engages and demands different kind of workers due to its Complex Nature (John Murdoch, 1992), for variety of the Works (FIDIC, 1999)

Firstly, general Blue Collar workforce may not be able to erect a scaffolding system or assemble a tower crane for a tall building. This nature of work is riskier than general construction and require special skills.

Secondly, the worker category specially trained to volunteer for rescue operations and fire fighting as and when required but working as general physical workers do not belong to Blue Collar category, although they engage in general physical works.



The Gold Collar worker category is not suitable for the identification of this special class of workers because nature of work is dissimilar. Hence that, a new category called 'Red Collar' is required to be introduced to the field of Human Resource Management (PMBOK, 2004) to bridge the gap in collar colour identification.

#### **2.1.14 Scarlet Collar Workers**

Scarlet Collar can be considered as a subsidiary of Pink Collar and term is used to identify female shop workers (Attendants) who are involved in light duties such as arranging display racks, cashiers etc.

#### **2.1.15 Silver Collar Workers**

Silver Collar is used to address selected employers who are working on contract or assignment basis after their retirement age. (In Sri Lanka, it is 55 years and 63 years in UK)

#### **2.1.16 Steel Collar Workers**

Steel Collar workers are non human workers or 'Robots' used in assembly lines of various automobile, Hazardous products, etc.

#### **2.1.17 White Collar Workers**

White Collar means salaried professionals, typically referring to general office workers and management

*White Collar workers, broad occupational grouping of workers engaged in non manual labor; frequently contrasted with blue collar (manual) employees. American in origin, the term has close analogues in other industrial countries. Managers, salaried professionals, office workers, sales personnel, and proprietors are generally included in the category. Professionals and managers, however, are occasionally excluded. Since World War II, the number of white-collar workers in the U.S. labor force has increased dramatically. Today they account for almost 50% of the labor force, outnumbering blue-collar workers by approximately 11 million persons. There is considerable difference of opinion concerning the political and social*

*attitudes of white-collar workers. Some authorities, such as C. Wright Mills, author of White Collar (1951), contend that members of the group identify with the institutions for which they work and hence tend toward political conservatism. Others, pointing to white-collar unions such as the American Federation of Teachers and the Distributive Workers of America, claim that white-collar workers tend to identify with manual laborers and others who do not own the means of production.*

(Answers.Com, 2004)

### **2.1.18 Yellow Collar Workers**

Yellow Collar represents the people in the creative field such as photographers, filmmakers, sculptors, gold guilders etc. They may spend time doing both white and blue collar tasks as well as tasks outside either category

## **2.2 Various Types of Management Requirement**

Generally, management of any organization requires three fundamental qualities like attitudes, skills and knowledge from the team of employers (Bernard Taylor, 1975).

1. Attitudes - A change in motivational, emotional or intellectual makeup of the participant, which is likely to enhance the effectiveness of his response to a variety of environmental incentives. Attitudes of openness towards himself and others, of tolerance to cultural differences, of trust and confidence in himself and others can be taken as examples.
2. Skills - A change in the intellectual and interpersonal abilities of the participant, which can enhance the effectiveness of his operation in remote environments: listening, communication, decision making, motivating and dealing with uncertainty are some of the abilities specifically useful when working on different work sites.
3. Knowledge - A change in the level of information, that the manager can understand process and utilise. As well as language and knowledge about a culture, we think for instance of understanding the dynamics of the intellectual

process of communication or environment analysis. In this, we are at the cognitive level, which may need to be preceded by change at the attitudinal level; through knowledge is far from being enough, especially when dealing with clients.

Change in any of the aforementioned three areas will then be assessed in terms of job performance (As perceived not only by the manager himself but by this direct professional environment as well), and the operational results will be assessed in terms of overt behavior and organisational output.

### **2.3 Human Relations and Social Psychological Theories**

Whereas the exponents of classical theory were principally concerned with the Structure and Mechanics of organizations, the human relations and physiological theories focused on the *human facture* (Cole, 1996) at work. These latter were invariably academics, social scientist, interested in people's behavior in the workplace. They were particularly interested in human motivation, group relationships and leadership. The concept of motivation, and describes the Hawthorne Studies conducted in the United States almost 100 years ago. Concept and the outline of the ideas of several early contributors of motivation theories in the 1950s and 1960s are notably by Abraham Maslow, Douglas McGregor, Frederic Herzberg, Rensis Likert, Chris Argyris and D C Mc Clelland. Summaries of the work of later theories, including Victor Vroom's expectancy theory, and the contributors of E A Locke, A Kelley and B F Skinner cannot be forgotten as well.

### **2.4 A H Maslow 'A Theory of Human Motivation'**

A H Maslow was born in 1908 in America. In 1967, the American Humanist Association named him Humanist of the Year. Maslow was a professor at Brandeis University from 1951 to 1969, and then became a resident fellow of the Laughlin Institute in California. He died of a heart attack on June 8, 1970.

From 1937 to 1951, Maslow was on the faculty of Brooklyn College. In New York, he found two more mentors, anthropologist Ruth Benedict and Gestalt psychologist Max Wertheimer, whom he admired both professionally and personally. These two

were so accomplished in both realms and such "wonderful human beings" as well, that Maslow began taking notes about them and their behavior. This would be the basis of his lifelong research and thinking about mental health and human potential.

He wrote extensively on the subject, borrowing ideas from other psychologists but adding significantly to them, especially the concepts of a hierarchy of needs, self-actualizing persons, and peak experiences. Maslow became the leader of the humanistic school of psychology that emerged in the 1950s and 1960s, which he referred to as the "third force" beyond Freudian theory and behaviorism (www.abraham-maslow.com, 2009).

#### 2.4.1 Analysis of 'A Theory of Human Motivation'

Maslow's 'A Theory of Human Motivation' is the most commonly use model in human motivation. His models of human requirements are structured in Figure 4 as a pyramid and with examples in Table 4.

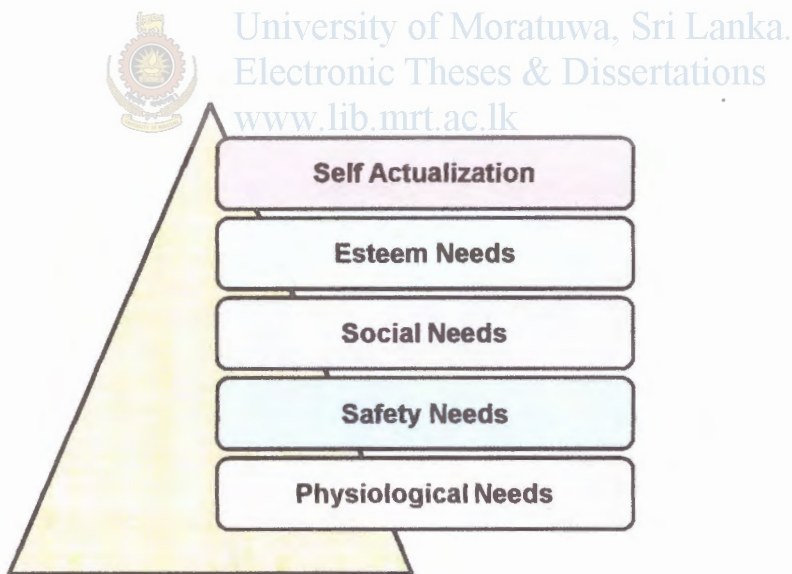


Figure 4 : Hierarchy of Human Needs  
(Source: www.abraham-maslow.com, 2009)

Maslow's theory is to motivate the workforces who are already in a certain industry. It does not address how to motivate people towards a certain industry or any other

mission. Further, his model is a paramedical structure. This indicates, not every person in the system may require reaching the top.

**Table 4 : Examples for Basic Human Needs**

(Source: [www.abraham-maslow.com](http://www.abraham-maslow.com), 2009)

Physiological Needs	Safety Needs	Social Needs	Esteem Needs	Self Actualization
Air	Living in the Safe Area	Friendship	Recognition	Truth
Water	Medical Insurance	Belonging to a Group	Attention	Justice
Food	Job Security	Giving & Receiving Love	Social Status	Wisdom
Sleep	Financial Needs		Accomplishment	Meaning
			Self Respect	

#### 2.4.1.1 Physiological Needs

Physiological needs are the biological needs those are required to sustain life. Few examples are shown below

- 1 Air
- 2 Water
- 3 Food
- 4 Sleep

According to the Maslow's theory, if these basic needs are not satisfied, then one will surely be motivated to acquire them. Higher needs such as social needs and esteem are not recognized until one satisfies the needs that are fundamental for his survival.

#### 2.4.1.2 Safety Needs

Once the physiological needs are met, then the human starts thinking of the next step of career development because it is his nature of behavior. Then the focuses on safety

and security aspects are become a requirement. In order to free himself from the threat to physical and emotional harm, following needs will have to be fulfilled.

- Living in a safe area
- Medical insurance
- Job security
- Financial reserves

According to the Maslow hierarchy, if a person feels threatened, he will not pay attention towards the higher needs of the pyramid.

#### **2.4.1.3 Social Needs**

Both physiological and safety needs are regarded as lower level needs. Once these needs have been met, a person's higher level motivators awaken. The first level of higher level needs is social needs which are those related to interaction with the society and may include:

- Friendship
- Belonging to a group
- Giving and receiving love



University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

#### **2.4.1.4 Esteem Needs**

When a person gets the feeling of “belongingness”, the urge to attain a degree of importance emerges. These needs are identified as Esteem needs in Maslow's hierarchy. Esteem needs can be grouped as external motivators and internal motivators. Internally motivating esteem needs may vary from person to person deepening on the personal ranking. Some examples of esteem needs are:

- Recognition (external motivator)
- Attention (external motivator)
- Social Status (external motivator)
- Accomplishment (internal motivator)
- Self respect (internal motivator)



Maslow later improved his model to add a layer in between self actualization and esteem needs which he called as the need for aesthetics and knowledge in 1956

#### **2.4.1.5 Self-Actualization**

Self-actualization is the peak of Maslow's motivation theory<sup>4</sup>.which is about the pursue of reaching one's maximum capacity of development as a singular person. Unlike the lower level needs of Maslow's hierarchy, the need of self-actualization, is hard to be achieved. As one grows psychologically, there are always new opportunities, which continue to grow.

Self-actualized people tend to have the following as motivators:

- Truth
- Justice
- Wisdom
- Meaning



University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

People, who have reached the state of self-actualization, will experience “peak status” very frequently, which are energized moments of profound happiness and harmony. According to Maslow, only a small percentage of the population reaches the level of self-actualization.

### **2.5 Human Behavior and Information Technology**

To guarantee a competitive edge, any amount of state of the art technology in itself is insufficient. At the end of the day, what adds up is putting human capital to the best possible use. In this respect, understanding the fundamental laws of human behavior not only remains the basis for well-designed workplaces, but also good human resource management. This should be addressed more at present than ever before as organizations become increasingly reliant on the creative input of their core knowledge workers. In short, the main argument here is that the use of the latest

---

<sup>4</sup> A set of statements or principles devised to explain a group of facts or phenomena

technology can never replace good team spirit and skilful management, both of which are dependent on mundane and primitive patterns of interpersonal relationship structure. (Pyoria, 2005)

## **2.6 Innovative Behavior**

Innovation theorists often describe the innovation process as being composed of two main phases: initiation and implementation. (Jong, 2007) The difference between these two stages is believed to be the point at which the idea is first adopted; i.e. the point at which the decision to implement the novelty is made. The first stage ends with the production of an idea, while the second stage ends as soon as the idea is implemented (Beers, 2009).

## **2.7 Leadership**

Different people perceive leadership in many different ways. Even though there is no exact or definite definition of leadership (Yuki, 2008), the majority of definitions of leadership reflect some basic elements, including “group” “influence” and “goal” (Trice, 1993). In general, leadership can be defined as the process of influencing others towards achieving some kind of desired outcome.

## **2.8 Leader Member Exchange (LMX) theory of leadership**

LMX theory focuses on the social exchange relationships between leaders and employees. It proposes that the quality of the relationship between a leader and follower influences outcomes such as subordinate satisfaction, supervisor satisfaction, performance, commitment, role conflict, role clarity and turnover intentions (Yuki, 2008) Some suggest that the quality of the relationship between a leader and follower is also related to innovativeness or novelty (Phillips, 1998). High quality exchange relationships include providing employees with challenging tasks, support in risky situations and the provision of task-related resources and recognition, all facilitating individual innovation.

In line with the above positive relationship between high quality relationships and creativity in a study among HRD leaders and employees of a chemical firm (Dae-seok



Kang, 2007), it was found that high quality relationships had a positive impact on the broader construct of innovative behavior as well.

## **2.9 Relative Solutions from Cuban Context**

Since Maslow's and other motivational theories as described in Section 2.3, (Human Relations and Social Psychological Theories) of this report are primarily from the view point of Capitalized Economies, another cross section from the Socialist Economy was taken in to consideration for the comparison purposes.

Best practices that work in the Cuban context introduced the use of training as an incentive (Julio Cervino, 2005). This training was categorized in to four groups.

- Technical Training
- Value Orientation Training
- Training as an incentive scheme
- Training as an incentive scheme

### **2.9.1 Technical training**



University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

One of Cuba's primary attractions for foreign hotel chains has been its large, relatively well-educated human resources (the literacy rate is approximately 95 per cent and university enrolment is very high) (Julio Cervino, 2005). Cuban workforce is acceptably equipped from an industrial and technical point of view, especially in the area of production. However, because of the companies' outdated production technologies and the lack of service and market-oriented mindset the workers need to update their knowledge through specific training programmes in order to be able to work in accordance with modern technology and models of management implanted by foreign corporations and investors.

### **2.9.2 Value orientation training**

In general, commercial & service sector employees of the Cuban society in particular lack market orientation. Cuba having more than 40 years of planned economy concentrated on achieving production plans has created a business orientation centered on production and not on sales or services. The end result has been a

bureaucratic value system, very similar to those established in the communist central and eastern European countries before the fall of the former Soviet Union. In these countries, the companies' main objectives were to satisfy the needs of managers themselves, employees, shareholders (Government of Cuba) and customers in that order. Contrast this with a different order of priorities, which he argues underlies the entrepreneurial value system of the West, which encompasses customers, shareholders, employees, and finally, managers.

In most of the communist countries, the role of the manager is to fulfill the plans established by the relevant ministries and to request funds for implementation. Everything is based on production objectives. Thus, Quality, Cost and Timeliness become important and customer orientation gets gradually wiped off from existence. However, the increase in foreign investments, Western influence and joint venture creations are changing managerial approaches from a bureaucracy to entrepreneurial value systems. From this perspective, training employees in the values of quality and service is simply vital, and training programmes play a very important role in the strategic positioning of foreign hotel corporations in the country. As a Spanish executive pointed out "Cuban tourism workers are very well-educated, if not overqualified in some circumstances, and they are eager to learn, disciplined, and responsive to guidance. But, they have not been exposed to quality service as a customer, and respond slowly to the delegation of responsibility." Another foreign executive followed by saying that "what is needed is time to train them to give an excellent service in a relaxed way, because their tendency is toward formality."

### **2.9.3 Training as an incentive scheme**

Besides, from the need to improve quality and service, training programmes are also good mechanisms as incentive schemes. Cubans generally believed that things will be changing towards a market economy in post Castro Cuba. Therefore, the incentive for Cuban workers' working in a foreign hotel corporation is to prepare themselves for the future as working in a foreign corporation gives them the opportunity and accessibility to new and more modern equipment, systems, knowledge and organisational patterns of management. In general, new ways of doing things in more up to date and efficient organizational systems.

The incentive dimension of training is also highlighted when it is conducted abroad mainly for managerial staff. For example, airline tickets for international trips must be paid for in Cuban Convertible Pesos (CUCs), beyond the reach of the average Cuban. In addition, the Cuban government and many European embassies have restricted the number of visas allowed for outbound trips, which means that it is very difficult for Cuban citizens to travel abroad. For this reason, any training programme that includes international travel is highly inspiring.

Furthermore, hotels are willing to invest in developing their employees' skills and capabilities as turnover rates are very low in the tourism industry. This is due to the lack of other professional or technical positions in other industries that could offer and secure a higher salary and/or better work environment.

#### **2.9.4 Training for professional development**

In communist societies, an individual's career is largely determined by his/her political loyalty. Cuban hotel top management is also members of the Communist Party and the political element is not less important than managerial competence in influencing the levels of responsibility assigned to an individual. There is a clear association between political confidence and career development, where the managerial factor is somehow less relevant than the political one (M. Pina e Cunha, 2009). However, due to socio-economic changes, managerial criteria are becoming more significant, and performance evaluation of managers are increasingly adopted and they are being promoted on the basis of performance. Therefore, acquiring the necessary skills and capabilities through training is also perceived as a mechanism for future career development.

#### **2.10 Motivational Management**

There are many books written on motivation. Throw in about a ton of articles and an equal if not greater weight of subjective "evidence" (Turk, 2008) will emerge. Combine who-knows-how-many studies and the result will be loads of information on motivation. Furthermore, to compound matters, much of the information thus available is contradictory. Hence, motivation is a matter of opinion, which is enriched

with ideas, perceptions and thoughts of several. Therefore, if more research is carried out, different ideas to that from those presented here could be encountered.

As per Wayne Turk, there are two myths:

1. Fear is a great motivator.
2. Money is a great motivator

Fear will motivate people, but it will be only for a short time. When the program manager yells at his or her people, it tends to flicker a spark, but it does not last. In fact, in the long run, fear becomes a de-motivating factor. People get used to it or tired of it, and they turn it off. If they get de-motivated enough, they begin looking for a different job.

Money can motivate too, but it is not high on the list of motivating factors. The interpretation is that if an employee makes enough money to meet all basic needs, more money matters less than other factors. White collar workers who make a reasonable salary to meet their basic needs (housing, food, transportation, etc.) are more directly motivated (most studies show) by other things such as time off, availability of telecommuting, recognition, working conditions, etc.

It is different on the low end of the scale. Low salaries, such as those of many blue-collar workers or service industry employees, leave workers in a tight money situation where they perceive that more money will help them meet their basic needs. Then money often becomes a motivator. There are always exceptions. Some people out there use money as a way to keep score. They are the highly competitive types who psychologically measure success through dollars.

### **2.10.1 Traditional Motivation Theories**

Now that we have discarded a couple of myths, we should look at what some of the theorists have to say about motivation. The following are very brief summaries of a few of the more famous theories.

### **2.10.1.1 Theory X**

This is an old theory going back to at least Sigmund Freud. It says that people are lazy, hate work, avoid responsibility, have no initiative, and have no ambition. To get them to work, they must be coerced, punished, intimidated, or rewarded in some way. This is the mostly stick side of the carrot and stick approach to management. While very few modern theorists agree with this theory, it seems that there are still a number of managers who do, or at least act as if they do agree with this theory.

### **2.10.1.2 Theory Y**

Attributed to Douglas McGregor, this theory says that people want to work, want to learn, and need challenges (actually self-challenges). In other words, they are looking for self-development.

When a manager gives them leeway and freedom to find their own challenges and work through self-direction, the management style meets Theory Y. To many, this seems to be a soft, wimpy management style. However, it does seem to work when the group is reasonably homogeneous, especially when people can choose their own leaders.

### **2.10.1.3 Theory Z or Maslow's Hierarchy of Needs**

According to Maslow, people have five needs that dominate their behavior. When one need is satisfied, the person aspires to the next higher need. The lowest need is physiological (food, shelter, clothing) and the hierarchy ascends through safety, love, self-esteem, and self-actualization.

Motivation must match the level of the hierarchical need of the individual at the time. The problem for the typical manager is recognizing at which level a person is, and recognizing when the person's level has changed as a result of outside circumstances.

### **2.10.1.4 Hygiene Motivation Theory**

Frederick Herzberg theorizes that people act according to their own self-enlightened interests. They have two types of needs: animal or hygiene needs (salary, supervision, interpersonal relations, and working conditions); and human or motivation needs

(recognition, work, responsibility, and advancement). The factors in the first group can be de-motivators if unsatisfactory, but have limited use as motivators. The second group involves the positive motivators.

### **2.10.2 Modern Motivational Theories**

Three of the most commonly discussed theories today are those of Chris Argyris, Rensis Likert and Fred Luthans. Argyris (Turk, 2008) says that organizations and jobs need to be restructured to enable individuals to develop to the maximum extent possible. This provides satisfaction and internal motivation. Likert (Julio Cervino, 2005) divided management into four styles: exploitive-authoritative. Benevolent-authoritative. consultative, and participative. He says that participative management (in which the employees have input in decisions, normally made in groups) satisfies the whole range of human needs and is therefore, the most motivating. Luthans (Julio Cervino, 2005) advocates a "contingency approach." where certain practices work best on certain people and certain jobs. For example, an authoritative approach works best for rigid, highly controlled, and inflexible jobs, while the opposite works with more flexible, creative jobs. In other words, fit the approach to the person and the job (Turk, 2008).



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

### **2.10.3 Putting Theory into Practice**

The basic idea of motivation is to answer the employee's question, "What's in it for me?" That may sound a little insensitive, but it's the truth. While there are general actions that hit some of the needs of most employees, there are specifics that you may have to determine for each individual.

Everyone is motivated by different things, and motivation can be affected by the age and generation of the employee. Aspirations of Baby Boomers, Generation Yers are different. It is interesting to analyze the differing needs of employees of different generations.

Findings of such a study should be the guidance for motivational actions. Whatever actions are imposed on employees, the first thing should be to find out what exactly motivates each person. Therefore, interviewing people, listening to them, and

observing them are paramount. Some of the strategies for motivation that has proved to be successful are as follows:

1. Treat employees with respect
2. Use good two way communication
3. Have high expectations
4. Use positive reinforcement
5. Employ effective discipline and punishment
6. Treat all fairly
7. Set work related goals
8. Satisfy employee needs
9. Restructure jobs when possible
10. Base rewards on job performance.

Meeting Employee needs meets the expectations of the Employer and hence, it is prudent to discuss these strategies in detail (Turk, 2008).

#### **2.10.3.1 Treat Employers with Respect**

All the employees and others should be treated with respect. How a superior acts toward those under his supervision and around him has an impact,

It is not just those who work for the organization but anyone with whom the organization has contact with ; subordinates; peers, and those in positions that can be considered service or support positions, like waiters, secretaries, the mailroom staff, and so on. In general, people observe how superiors treat other people.

If a person is rude, demanding, or demeaning people, he will de-motivate them. When people are treated with respect, they will want to work with the organization or work for the organization. Being respectful or nice does not mean letting people roll over. Strong but a tactful and polite approach is more suitable.

How a person is treated will influence how their needs are handled or the priority applied to the work or requests. Someone who has been mistreated could even directly



sabotage or undermine your work if that person is upset enough. On the other hand, kindness and politeness can pay great benefits. Then people will want to please the person who had been good to them. It is surprising to know how a simple thing as a cheerful "good morning" or a polite "thank you" can help motivate people. Being polite is not being obsequious.

### **2.10.3.2 Use good two way Communication**

Employing good two-way communication is essential. While respect should be devolved to all those around communication can be limited to those who work for you. Ensure that project team members know the organizational goals for and the expectations of them. What each task entails and the results required should be communicated clearly. A good Manager must spend time figuring out how to articulate everything clearly, as Good communication one on one and with the whole team is a necessity for any manager.

Giving an ear to the employees is also imperative in good communication practices. Simply showing that he or she had been heard does not suffice. Really listening to what the employees have to say not only helps motivate them, but also helps to understand what else motivates the workers. As an added benefit, there is a possibility to obtain useful suggestions on how to do task better, ideas for process improvement, identification of a problem, or a solution to a problem.

### **2.10.3.3 Have high expectations**

Having and communicating high expectations for the employees is critical. If people know that the organization expects good things from them, they are motivated to live up to those expectations, A positive self fulfilling prophecy works.

### **2.10.3.4 Use positive reinforcement**

Positive reinforcement is critical. It can be both subtle and more obvious. With today's tight budgets and the regulations within government, it may be hard to do too much that is tangible such as pay raises, bonuses, cash rewards, or gift certificates. If something tangible could be done, it is great. If not, perhaps a reward of time off or a more flexible schedule is possible. It could be in the form of allocating a special

parking place for a specified period or some other similar recognition. The reward should fit the desires of the employee.

Employees need to be recognized for their good performances. Consider the extra responsibility that employee would have had to assume. What about overtime, especially if it is unpaid overtime? How about helping or mentoring others in the workplace? People who carry out these types of activities should be recognized. Although it may be their job, it is true that there are people on a team who go beyond at work. They are definitely worth of appreciation of at least a "thank you" in front of their coworkers and even the boss. Be positive, be specific, and be sincere. Sincerity is critical. Meaningless praise will mean nothing.

#### **2.10.3.5 Employ Effective Discipline and Punishment**

On the other hand, effectively disciplining those who are not doing their share of work those who break the rules is also important. This should be done privately as much as possible and in the event of people who continually shrink from their duty or break rules, sacking them may be the solution. Knowing that there are going to be retributions when a line is crossed motivates people, it is not fear, but the knowledge that those doing right are rewarded and those doing wrong are disciplined.

#### **2.10.3.6 Treat all Fairly**

All must be treated fairly. There cannot be favorites or, non favorites for that matter. When people do well, it has to be pointed out; and at the same time, make notice of the bad things. For example, you cannot let a favorite be continually late with nothing said or done if you punish someone else for the same offense. People watch for those kinds of things. Unfair treatment, good or bad, can damage motivation, morale, and productivity.

#### **2.10.3.7 Set work related Goals**

Work related goals have to be set for the members of a team. These goals should be clear, fair, reachable (although "stretch goals" are fine), and quantifiable. It is required to set the goals with the team members. Get the input, which may mean some negotiation, but talk the goals through. When people have goals, they frequently

motivate themselves and find ways to meet those goals. That is especially true when there is some reward that is valuable to them.

#### **2.10.3.8 Satisfy Employee Needs**

All the things mentioned so far (and yet to come) are a part of "satisfying employee needs." If needs of the employees are not satisfied, they may leave the organization and start working for another., There may be other needs that that required to be considered as mentioned above such as tangible rewards, time off, and more flexible schedules. There is also the chance for promotion or to try something different. It could be anything. But if something cannot be done, it is a good idea to let the people know and let them know why.

#### **2.10.3.9 Restructure Jobs When Possible**

This is frequently difficult, but it can have a large impact. Something should be done to minimize or get rid of what a person perceives as the "bad" parts of a job (tasks that are redundant or boring),. Or else broaden the scope of a job to include tasks that people enjoy, want to learn, or, for some other reason, enhance the job. This has to be done carefully as at the end of the day, All of the required tasks have to be done; therefore, work should be made tolerable.

#### **2.10.3.10 Base Rewards on Job Performance.**

All rewards should be based on job performance. Personality should not play a part. rewards or recognition should be given as appropriately and fairly. Ensure that it is in relation to meeting goals. It should be done to meet employee and organizational needs. In addition, it should be based on the work that they perform.

With positive motivation, managing people becomes easier, and project success is more readily attainable. But, motivation does not only apply to people on projects it is a fundamental managerial requirement for success at any time.

## Chapter 3 - Methodology

### 3.1 Preliminary Informal Surveys

After recognition of the inherent problems related to the Root Cause of the in customer dissatisfaction, Preliminary Informal Surveys were conducted with the following social groups.

1. Directors of leading construction companies
2. Professionals in construction industry
3. Various *Employers*<sup>5</sup>, Clients and Subcontractors
4. Grey Collar and Blue Collar workforce in construction industry
5. Workers who are diverted from the Construction Industry
6. Dependents & close relatives of Blue Collar Workforce
7. Young school leavers

After the preliminary survey, several questionnaires were prepared to survey various cross sections within the construction industry by leaving other areas for further researches.



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

#### Secondary Survey:

1. Directors of leading construction companies (*MI/CI*<sup>6</sup>) - Appendix A
2. Construction Site Managers (*Contractor's Representative*)<sup>7</sup> - Appendix B
3. Site Engineers, Technical Officers & General Foremen - Appendix C
4. Blue Collar Workers - Appendix D (In all three languages in Sri Lanka)

### 3.2 Non Structured Discussions

Based on the data collected through non structured discussion mode interviews with Management and Blue Collar Workforce, several gray areas were identified. These findings can be further sub divided in to two categories as 'Impinges on Management' and 'Impinge on Blue Collar Workforce'.

---

<sup>5</sup> FIDIC 1999, Clause 1.1.2.2

<sup>6</sup> ICTAD Contractor registration and grading scheme

<sup>7</sup> FIDIC 1999, Clause 1.1.2.5

### Impinge on Management

1. Poor quality of workmanship
2. Lack of cost concerns
3. Carelessness & lack of concern for safety
4. Lack of trade knowledge and skill
5. Poor, temporary or irregular attendance
6. Reluctant to learn or undergo training
7. Irresponsibility & lack of reliability
8. Adamant behavior & lack of loyalty
9. High labour turnover
10. Unfair demanding of wages or labour rates
11. Unreasonable or unethical sudden demanding

### Impinge on Blue Collar Workforce

1. Lack of social recognition
2. Temporary nature of the occupation
3. Behaviors of the immediate supervisor
4. Gray areas in the career development
5. Interpersonal relationships
6. Insufficient income
7. Dissimilarities in salary scales
8. Political & social influences
9. Influence from the dependents
10. Improper gender balance
11. Safety & sanitary facilities
12. Poor retirement benefits
13. Non availability of recreation facilities
14. Being away from family and relatives
15. Lack of trouble free communication

### **3.3 Questionnaire Survey**

A questionnaire is a research instrument consisting of a series of questions and other prompts for gathering information from respondents. Although they are often designed for statistical analysis of the responses, this is not always the case. Sir Francis Galton invented the questionnaire survey in 1859. Questionnaires have advantages over some other types of surveys in that they are cheap, do not require as much effort from the questioner as verbal or telephone surveys, and often have standardized answers that make it simple to compile data. However, such standardized answers may frustrate users. (Wikipedia Encyclopedia, 2003)

Questionnaires are also sharply limited by the fact that respondents must be able to read the questions and respond to them. Thus, for some demographic groups conducting a survey by questionnaire may not be practical.

As a type of survey, questionnaires also have many of the same problems relating to question construction and wording that exist in other types of opinion polls.

As described in the Section 1.6 (Scope Limitations), of this report, Four (4) Questionnaires were prepared to suit selected categories mainly involved in the construction industry as listed below.

- |   |                                |          |
|---|--------------------------------|----------|
| 1 | Construction Company Directors | - Form A |
| 2 | Construction Site Managers     | - Form B |
| 3 | Site Staff - Technical         | - Form C |
| 4 | Blue Collar Workforce          | - Form D |

While designing the questionnaire space was allocated for suggestions to gather additional information. These spaces for suggestions were found very attractive among the participants and some of the comments given by the participants were found very valuable.

The questionnaires were designed in a structured manner to recognise the various factors as a matrix given in Table 5.

Table 5 : Questionnaire Design Matrix

Questionnaire Section		Appendix			
		A Director	B Manager	C Site Staff	D Workforce
1.	Mode of entry to the industry	√			
2.	Satisfactory recognition	√	√		
3.	Fundamentals of Stakeholder satisfaction	√	√		
4.	To understand major resource requirements	√	√		
5.	Mode of fulfillment of Human Resources	√	√		
6.	Inhalant negative impact of Human Behavior	√	√	√	
7.	Difficulties of Blue Collar Workforce	√	√	√	√

Participants personal contact data was gathered as well with a view to approach them if needed for further requirements. However, declaration note was incorporated in to the top of each type of questionnaire saying, “Collected data will not be passed on to any third party and used solely for the purpose of the study only” in order to gather more reliable data while maintaining trust and confidentiality.

A very general question ‘Insufficient Income’ and ‘Degree of Importance’ from 1 to 7 was incorporated into every questioner to motivate the participants and to highlight the purpose of the study is to develop their future only. Further, it was pre decided not to analyze the response to this question because it the most important question for short-term planners.

Few questions or spaces for suggestions were incorporated for understanding future research areas. Selected questions were incorporated in to the questionnaires for Directors and Managers (Form A and Form B) for testing of some hypothetical assumptions based on previous researches (Samarakoon, 2009) and preliminary interviews.



### 3.4 Sample Selection

Selecting of sample size was at a dilemma because differences in reports of Central Bank of Sri Lanka (CBSL, 2007) & Department of Censes Sri Lanka (DCSL, 2000) are providing contradicting data as shown in

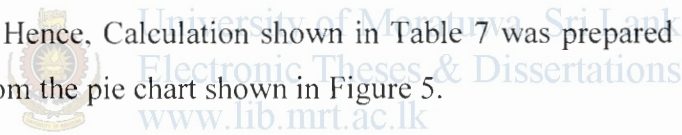
Table 6.

**Table 6 : Head Count of Constriction Employers**

Source: (Various)

	Description	2005	2006	2007	2008
CBSL	Construction Participation %	6%	6%	5%	5%
DCSL	Nr of Employers (All trades)	350,000	417,000	527,000	542,000

While industry participation for Construction Service Sector is at down fall according to CBSL, it is impossible to increase the number of employers in any industry as shown in DCSL report. Hence, Calculation shown in Table 7 was prepared with the use of data abstracted from the pie chart shown in Figure 5.



**Table 7 : Number of Blue Collar Workforce, 2008**

<b>Calculation of sample size based on CBSL Report, 2008</b>	
Supply of Goods & Services	6,101,000,000,000.00
Participation % of Construction Sector	5.00%
Value of Construction Services	305,050,000,000.00
Average % of Human Resource	20.00%
Value of Labour Component	61,010,000,000.00
Number of working days per annum	300.00
Daily value of labour component	203,366,667.00
Deduct 25% as Salaries of Grey Collar Workforce	(50,841,667.00)
	152,525,000.00
Average salary scale	800.00
<b>Number of Blue Collar Workforce in year 2008</b>	<b>190,656.00</b>

According to the categorization of Central Bank of Sri Lanka, Construction Industry belongs to the service Sector that primarily provides safety for the human as described in Section 1.1, (Research Background).

Central Bank of Sri Lanka Annual Report - 2008

**Chart 2.5**      **The Economy in 2008 (at current prices)**

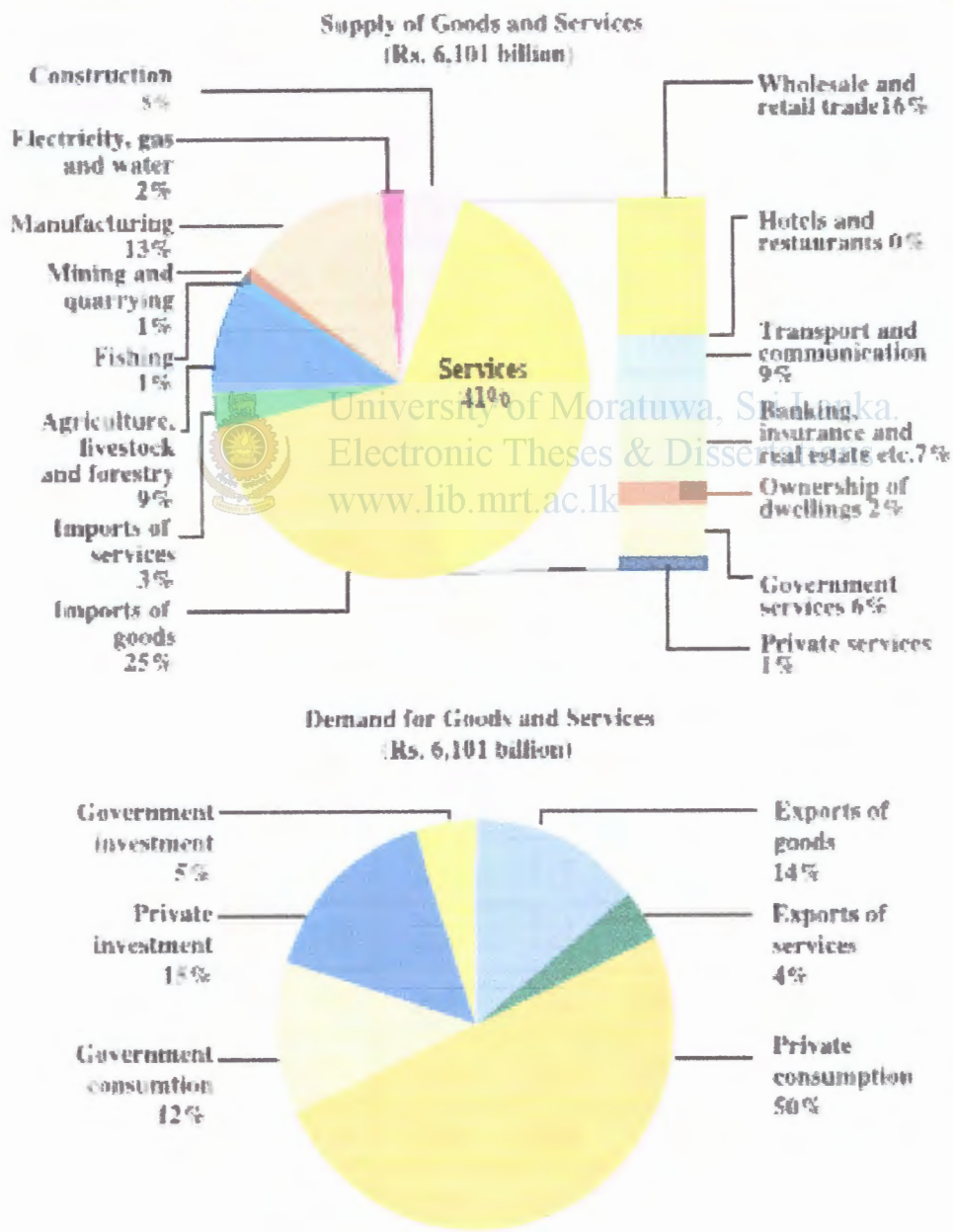


Figure 5 : Supply of Goods and Services, 2008

Source: (CBSL, 2007)

### 3.5 Determination of Sample Size

For deriving the sample, size following table (Standard ‘T’ table) given in Table 1 was used. Accordingly, required sample size to represent the catchment population of 190,656 heads of Blue Collar Workforce was concluded as 384 participants.

**Table 8 : Sample Size for Given Population**

Source: (Robert V Krejcie, 1970)

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	<b>384</b>

Note: ‘N’ is population size

‘S’ is sample size.

### 3.6 Questionnaire Distribution

Presuming negligence factor of 25% of the respondents, questionnaire were distributed or interviewed in the manner shown in Table 9.

Table 9 : Questionnaire Distribution Table

	Distribution Category	Form Type	Target Response
1	Construction Company Directors	A	5
2	Construction Site Managers	B	10
3	Middle Managers - Technical	C	40
4	Blue Collar Workforce	D	400
<b>Total Questionnaires</b>			<b>455</b>

### 3.7 Identification of Key Factors

Through the day to day work, some effort was given to recognise the real reasons for the aforementioned problems through various ways of one to one communication and through hypothetical formulations.

Talking to the construction workers was difficult because they come to kiosks only as a gang to buy a packet of lunch and return to their workplace of work to enjoy it.

One or more of the following or some other reason, which shall have to be identified through a systematic research, could produce the background for this problem.

When advertising for positions, it is not difficult to find human recourses for many technical categories such as the grades of Site Supervisors and above. Through minor adjustments to the salary scale or by fulfilling any other personal requirement of the applicant, achieving a mutual agreement for recruiting is not difficult with them.

Various thoughts & viewpoints were found during literature review.

*“Our society says no one should start from the bottom of the ladder. Get an education and start a few rungs above. This is fine for people with the resources to acquire the skill that put them in the lead, but there will always be people needed at the bottom, they will always be willing to fill those slots and there will always be people without the resources to start at a higher level. Society seems to think, anyone who starts at the bottom will stay there. There is no reason to stay at the starting position. With aggressive attitudes, individuals can move up, but they need to know how.”*

(Webb, 2001)

Above statement confuses someone who starts his or her carrier from the bottom. The key problem arising is if everybody does the same, who is going to fill the gap of the first few rungs?

### 3.8 Methodology of Data Analysis

Since data analysis is a process of inspecting, cleaning, transforming, and modeling data with the goal of highlighting useful information, suggesting conclusions, and support decision making. Data analysis has multiple facets and approaches, encompassing diverse techniques under a variety of names, in different business, science, and social science domains. (Wikipedia Encyclopedia, 2003)

### 3.9 Relative Important Index (RII)

To determine the relative ranking of the assessment methods, the scores entered in the survey are transformed to RII values using the following equation where ‘w’ is the weighting given to each factor by the respondents, ranging from 1 to 7.

$$RII = \frac{\sum w}{AN}$$

In the above formula, ‘A’ is considered as the highest weight (i.e. 7 for this research) and ‘N’ is the total number of samples. Accordingly, RII is the relative important index, where the answer is between ‘0’ and ‘1’.

Together with the data collecting survey, individual interviews were conducted with top management and some selective responding middle management and Blue Collar Workers, whom were chosen to represent each category and the various groups defined above. These interviews were intended to gather further comments, elaboration and interpretation on the results obtained from the survey.

It is to be noted that this report has been written from an independent point of view on recognizing various stakeholders, employer and employee difficulties. With the use of RII, it was possible to quantitatively analyze the collected data of industry difficulties on the time, cost and quality issues and the difficulties experiencing by the Blue Collar Workforce in construction industry in Sri Lanka. From that, it is possible to obtain guidance on how to improve their effectiveness, behaviors and lives in order to motivate them towards the Construction industry. Even though certain views are sometimes divergent, it is believed that the detailed quantitative measures presented in this paper are sufficient to draw initial conclusions on the assessment methods.

Objective measures on the Proposed Model can then be conducted in a later research to validate the quantitative results and making a decision on the best suitable model in order to formalize the difficulties experiencing by the Construction Industry today.



## **Chapter 4 - Analysis and Discussions of Results**

### **4.1 Questionnaire Survey**

First problem that arose during the questionnaire survey was 'What does Blue Collar actually mean?' answering and lengthy explanation was required by many professionals. Hence, a compressive list of available 'Collar Colours' and their respective usage was incorporated into the Section 2.1 of this report.

Participation from Company Directors (Form A) was very positive. All requested appointments were received. Construction Site Managers (Form B) gave late response and many reminders and more than double the amount of forms were required to collect the target responses.

In Middle Managers (Form C) and Blue Collar Workforce (Form D) General information data was pre filled into the forms prior to the distribution and response was 100% because it was conducted on a pre arranged structured manner. A complimentary pen was given to every participant as a token of gratitude.

Ninety one percent (91%) of the participants from Directors, Managers and Technical Staff of this research were male and only nine percent (9%) from females. Further it was noticed that among this 9%, most of the female managers work for the public sector. When it comes to Blue Collar Workforce, male participation is 95% and female participation is limited to 5%. Tamil community participation is approximately 7.5% of the total Blue Collar Workforce. 6.25 % of the construction industry workforce is over their retirement age and falls in to the category of 'Silver Collar' as described in

Table 3. Further, the oldest Company Director had crossed the age barrier of 69 Years.

4.75 % of the Blue Collar Workforce has over 30 years of industry experience and still work as daily paid casual employers.

Questions relating to EPF and ETF were not properly attended by the participants showing some indication of misapplication of the current labour law of Sri Lanka.



## 4.2 Data Analysis

As explain in Section 3.9, (Relative Important Index) was mainly used with the lateral support of Pareto Distribution to analyse data in order to recognise the relative impact of recognized causes and effects and to weigh the importance as a percentage of the problems of the Blue Collar Workforce.

### 4.2.1 Demographic Characteristics

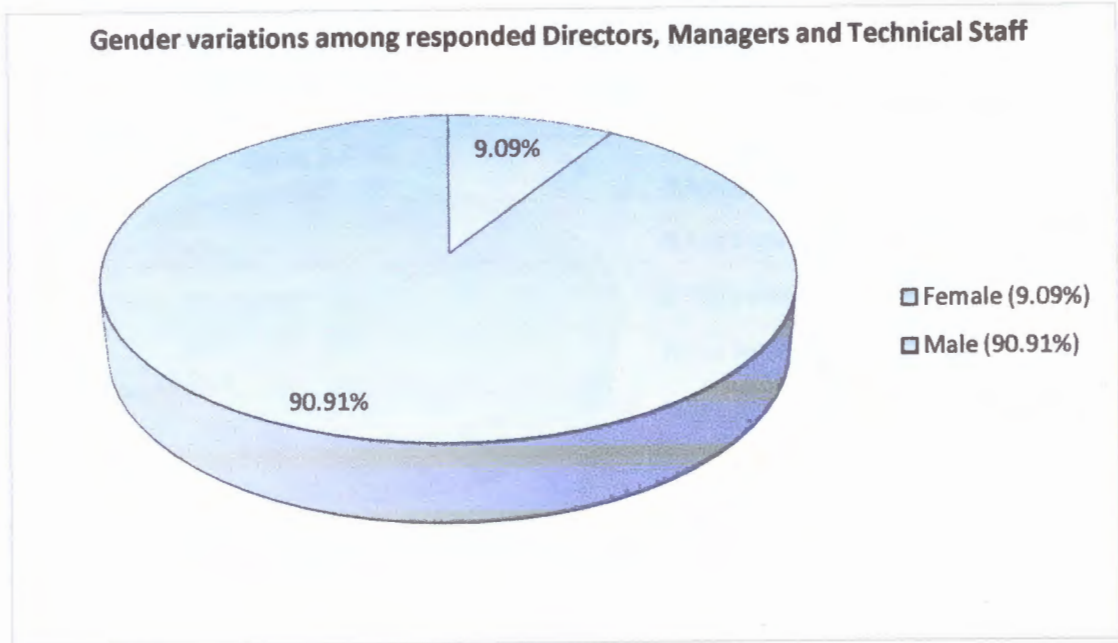
Demographics or demographic data are the characteristics of a population as used in a opinion research. The term demographic is used as a noun and often used for the studying of human population, its structure and change. Although there is no absolute delineation, demography focuses on population structure, processes and dynamics.

Table 10: Demographic Characteristics of the respondents

Demographic Characteristics	Directors, Managers and Technical Staff	Blue Collar Workforce
<b><u>Gender Balance</u></b>		
a Female	9.09%	5.25%
b Male	90.91%	94.75%
<b><u>Age Variations</u></b>		
a Age between 18 to 25 Years	10.91%	12.25%
b Age between 26 to 35 Years	36.36%	24.00%
c Age between 36 to 45 Years	27.27%	30.75%
d Age between 46 to 55 Years	20.00%	26.75%
e Age between 56 to 65 Years	3.64%	6.00%
f Age over 65 Years	1.82%	0.25%
<b><u>Experience Variations</u></b>		
a Experience less than 5 Years	25.45%	17.25%
b Experience between 6 to 10 Years	27.27%	14.25%
c Experience between 11 to 15 Years	9.09%	14.50%
d Experience between 16 to 20 Years	16.36%	18.50%
e Experience between 21 to 25 Years	12.73%	14.50%
f Experience between 26 to 30 Years	7.27%	16.75%
g Experience between 31 to 35 Years	1.82%	2.75%
h Experience over 36 Years	0.00%	1.50%

#### 4.2.1.1 Demographic Characteristics of 'Gender Balance'

A demographic characteristic of the 'Gender Balance' for this research is shown in the Figure 6 and Figure 7.



University of Moratuwa, Sri Lanka.

Figure 6 : Gender Balance of Directors, Managers and Technical Staff

[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

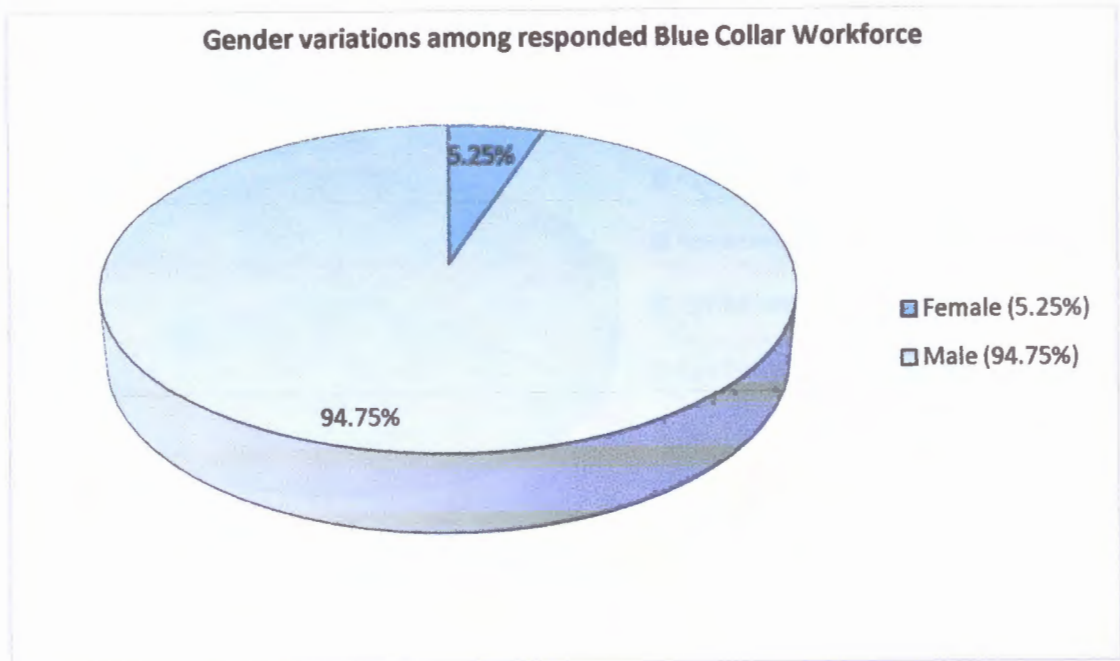


Figure 7 : Gender Balance of Blue Collar Workforce

#### 4.2.1.2 Demographic Characteristics of 'Age Variations'

Demographic characteristic of the 'Age Variations' for this research is shown in the Figure 8 and Figure 9.

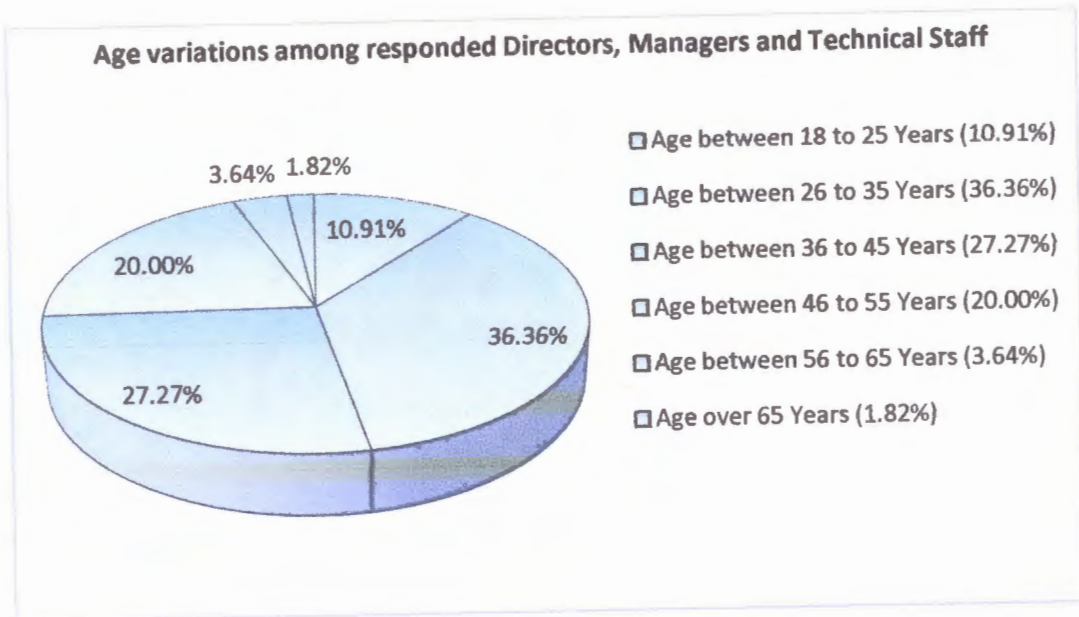


Figure 8 : Age Variations of Directors, Managers and Technical Staff  
 University of Moratuwa, Sri Lanka  
 Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

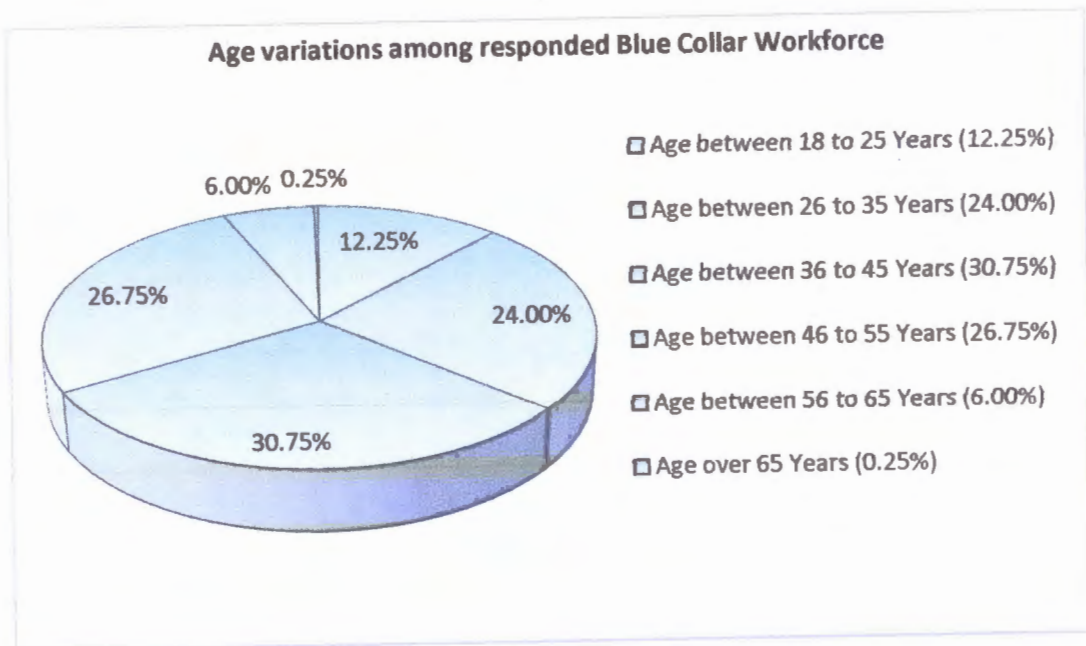
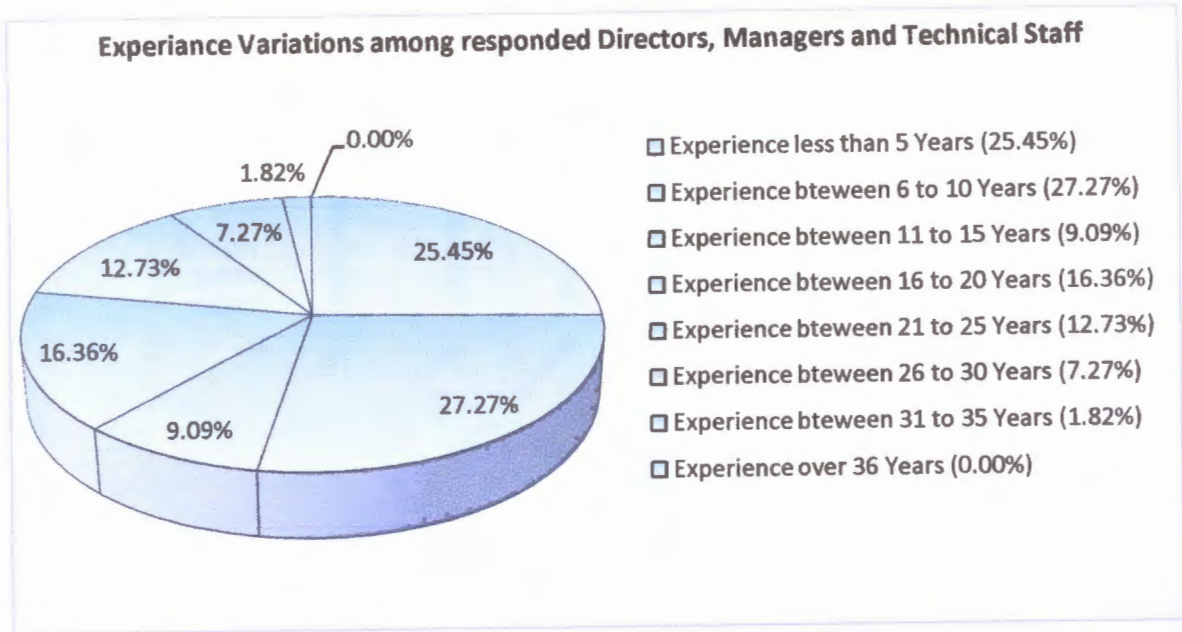


Figure 9 : Age Variations of Blue Collar Workforce

### 4.2.1.3 Demographic Characteristics of 'Experience Variations'

Demographic characteristic of the 'Experience Variations' for this research is shown in the Figure 10 and Figure 11.



University of Moratuwa, Sri Lanka.

Electrical Engineering Department

www.lib.mrt.ac.lk

Figure 10: Experience Variations of Management Staff

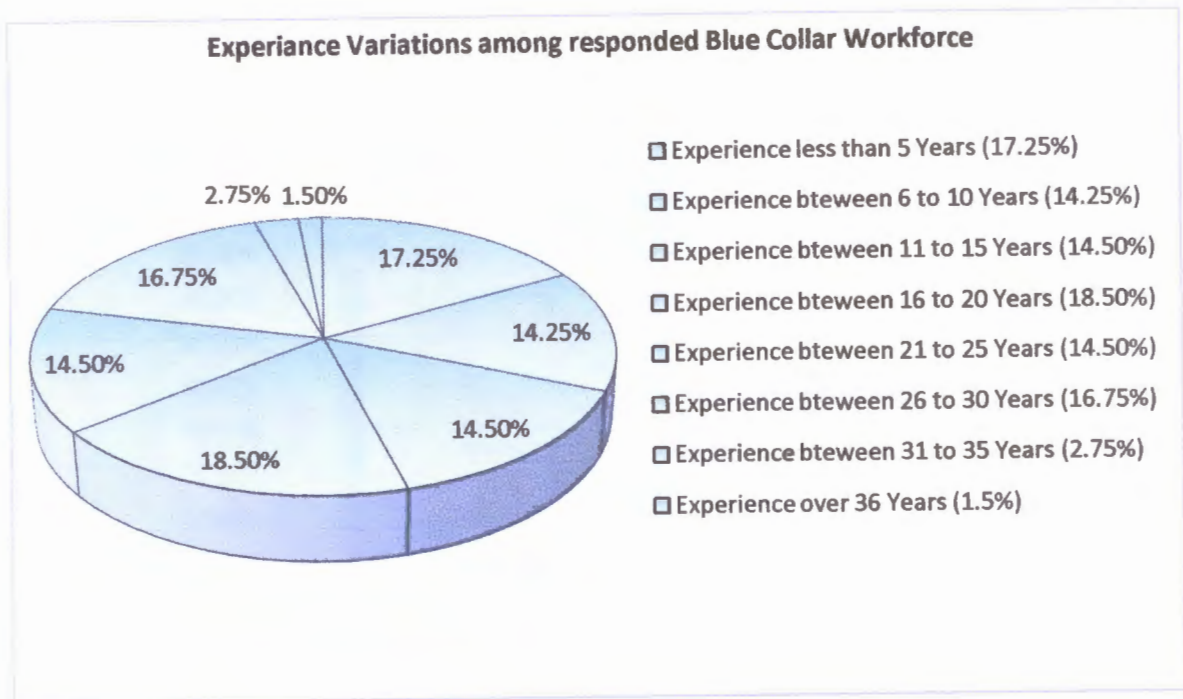


Figure 11: Experience Variations of Blue Collar Workforce



#### 4.2.2 Difficult areas of Customer Satisfaction

Difficult areas of customer satisfaction were shown in Figure 12. According to Pareto distribution Cost, Time, Operational Sequence and maintain Confidentiality are the most difficult areas of customer satisfaction.

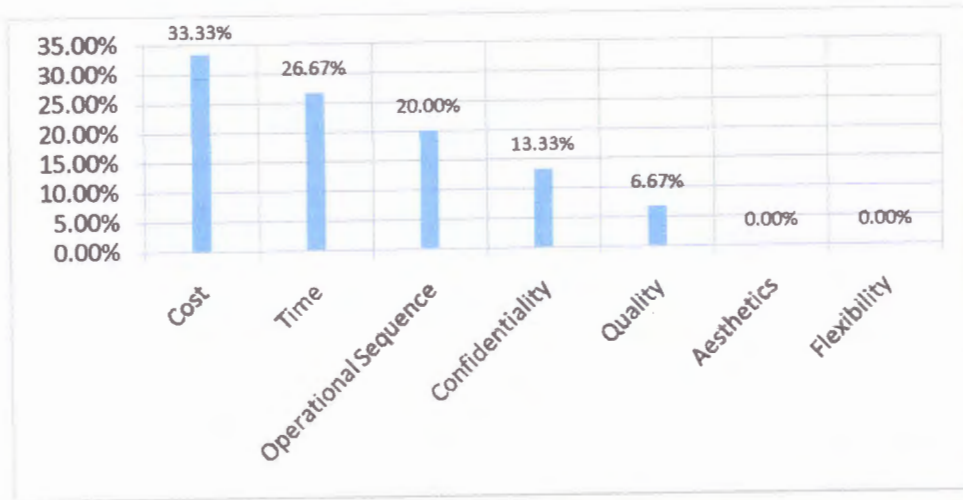


Figure 12 : Difficult areas of Customer Satisfaction

#### 4.2.3 Critical Resources Requirements under 'Construction 6M Concept'

Difficult areas of customer satisfaction were shown in Figure 13. According to Pareto distribution, Manpower and Methodology are the most difficult resource requirements. In management point of view, finding material, machinery and monetary requirements are not among critical factors.

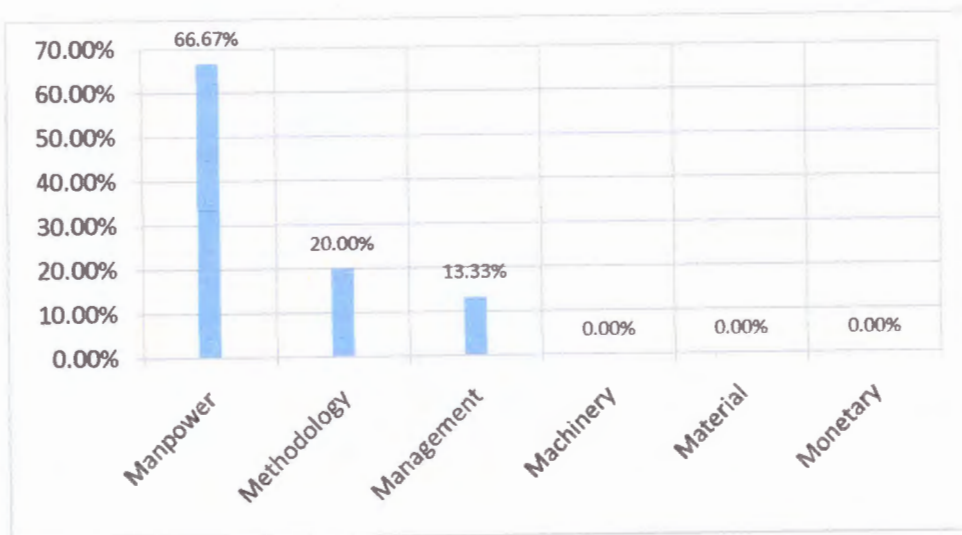


Figure 13: Critical Resources Requirements under 'Construction 6M Concept'

#### 4.2.4 Recruitment Modes of Blue Collar Workforce

Five different modes of requirements were identified and Relative Important Index (RII) was used to analyze the subjective importance of these findings. Most common mode of fulfilling the required amount of Blue Collar Workforce has become subcontracting on output basis. Relative modes of fulfilling manpower requirements are described in Figure 14.

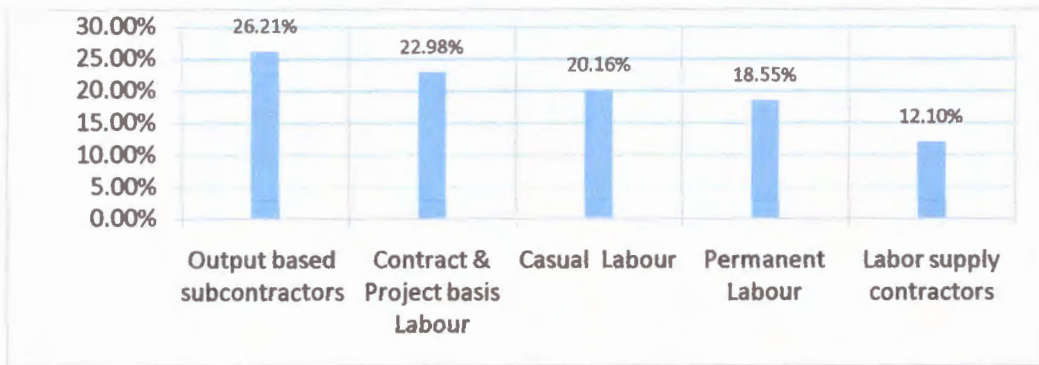


Figure 14: Recruitment Modes of Blue Collar Workforce

#### 4.2.5 Behavioral Problems of Blue Collar Workforce

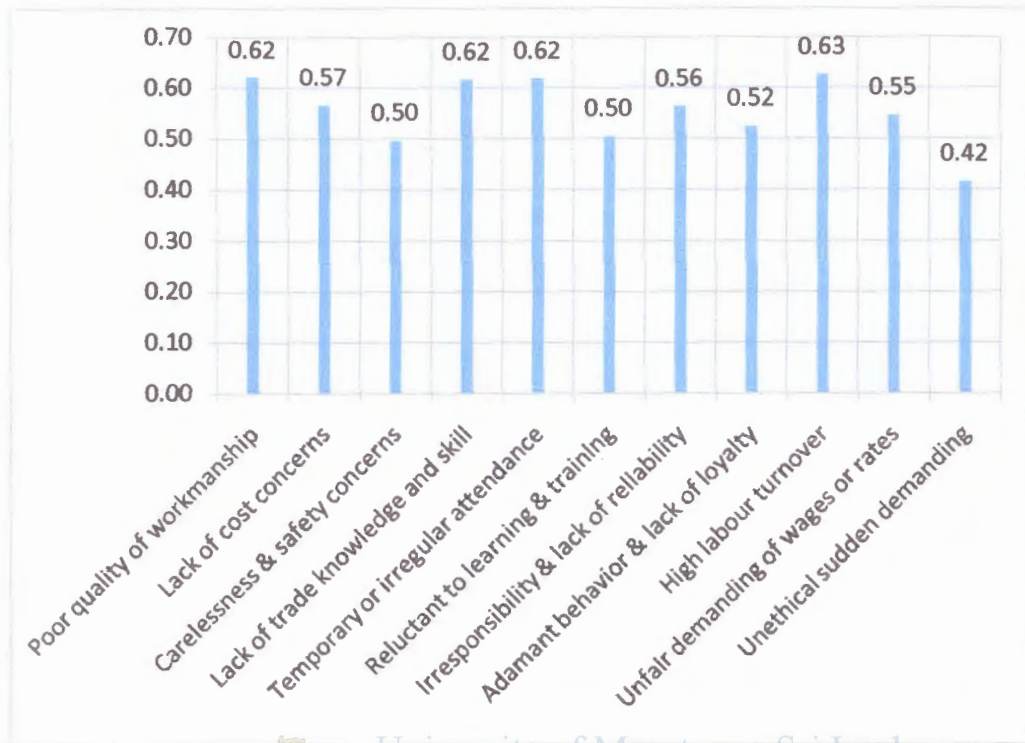
As described in Section 3.2, (Non Structured Discussions) of this report impinges of the Blue Collar Workforce can be weighted. It was apparent that almost all the identified impinges are giving considerable impact to the construction industry. Relative importance of identified impinges are shown in Table 11

Table 11: Ranking of Behavioral Problems of Blue Collar Workforce

Rank	Description	%	RII
1	High labour turnover	11.43%	0.63
2	Poor quality of workmanship	11.34%	0.62
3	Temporary or irregular attendance	11.29%	0.62
4	Lack of trade knowledge and skill	11.24%	0.62
5	Lack of cost concerns	10.34%	0.57
6	Irresponsibility & lack of reliability	10.29%	0.56
7	Unfair demanding of wages or rates	9.96%	0.55
8	Adamant behavior & lack of loyalty	9.58%	0.52
9	Reluctant to learning & training	9.20%	0.50
10	Carelessness & safety concerns	9.06%	0.50
11	Unethical sudden demanding	7.59%	0.42



Behavioral problems of the present Blue Collar Workforce, which were identified by supervisory staff, are shown in Figure 15.



University of Moratuwa, Sri Lanka.  
 Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

Figure 15: Behavioral Problems of Blue Collar Workforce

#### 4.2.6 Difficulties experienced by Blue Collar Workforce

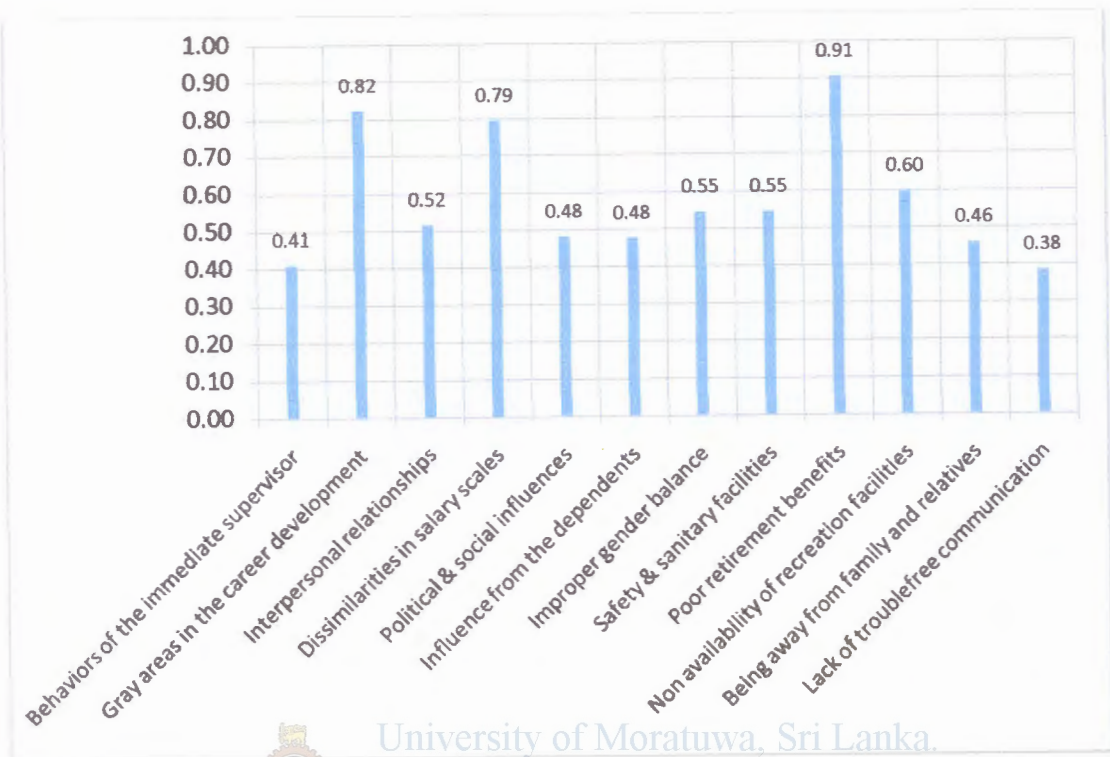
As described in Section 3.3, (Questionnaire Survey) of this report, impinges on Blue Collar Workforce can be weighted. Relative Importance Index of identified impinges according to the Management point of view are shown in Figure 16 and self review is shown in Figure 17 respectively.

It is apparent that almost all the identified impinges are giving considerable impact to the construction industry. However, poor retirement benefits, temporary nature of employment and social recognition can be considered as vital factors of the current problem.

‘Being away from family and relatives’ and ‘Gender balance’ are having vast difference between the two angles of Blue Collar Workers and Management Staff. According to the Management point of view both the above two reasons have high importance but it was not that significant for the workers.



'Dissimilarities in salary scales' and Lack of 'Trouble free communication' have concluded different opinions from the Management & Workmen as well.



University of Moratuwa, Sri Lanka.

Figure 16: Difficulties of Blue Collar Workforce (Management View)

[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

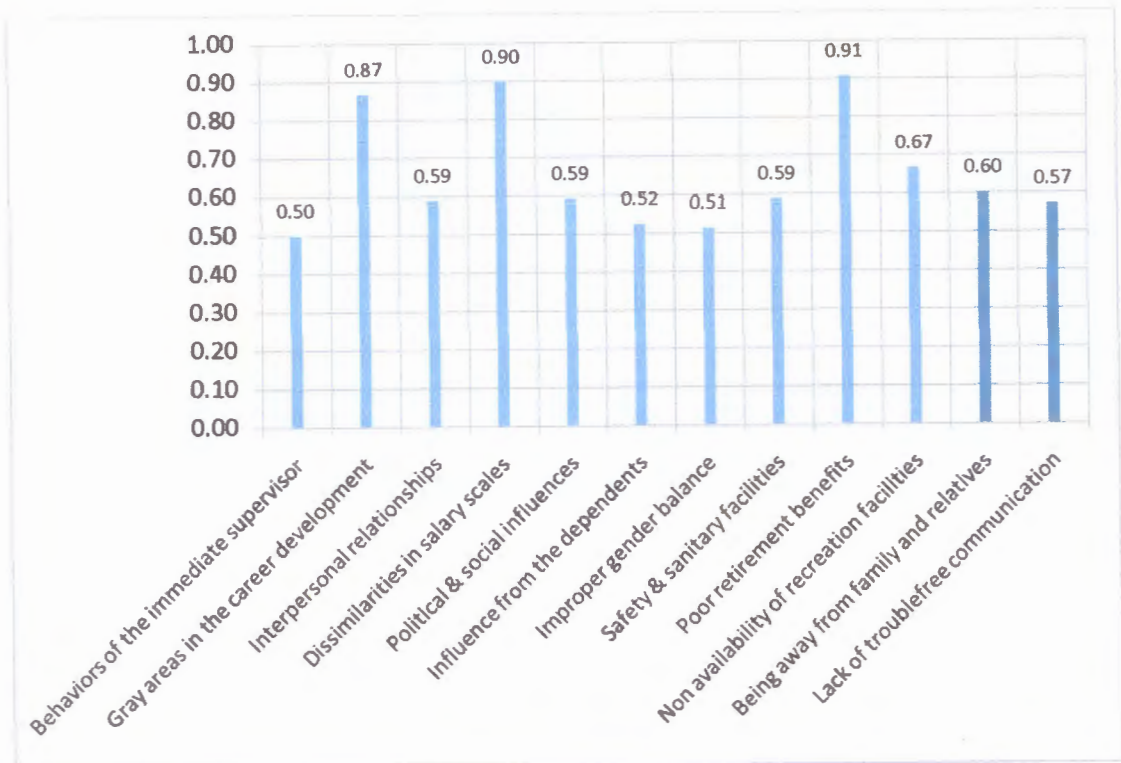


Figure 17: Difficulties of Blue Collar Workforce (Self-Review)

#### 4.2.7 Comparative Analysis from different Points of View

Ranking of relationships between findings from the viewpoint of Blue Workforce is compared against the viewpoint of Managers. From both viewpoints, most important reason is identified as poor Retirement Benefits. No major deviations were found among the 'Top 6' impinges of two different viewpoints of Blue Collar's Vs Management.

Table 12: Comparative analysis of Relative Importance Index

	Description	%	RII of Blue Collar's	Ranking (By Workmen)	Variance	Ranking (By Management)	RII of Management	%
a	Lack of social recognition	8.80	0.83	5	-2	3	0.82	9.50
b	Temporary nature of the occupation	8.90	0.84	4	+2	2	0.87	10.10
c	Behaviors of the immediate supervisor	5.30	0.50	14	-1	13	0.41	4.80
d	Gray areas in the career development	9.10	0.87	3	+1	4	0.82	9.50
e	Interpersonal relationships	6.20	0.59	10	-1	9	0.52	6.00
g	Dissimilarities in salary scales	9.50	0.90	2	+3	5	0.80	9.20
h	Political & social influences	6.20	0.59	8	+2	10	0.48	5.60
i	Influence from the dependents	5.50	0.52	12	-1	11	0.48	5.50
j	Improper gender balance	5.40	0.51	13	-6	7	0.55	6.30
k	Safety & sanitary facilities	6.20	0.59	9	-1	8	0.55	6.30
l	Poor retirement benefits	9.60	0.91	1	0	1	0.91	10.5
m	Non availability of recreation facilities	7.00	0.67	6	0	6	0.60	6.90
n	Being away from family and relatives	6.30	0.60	7	+5	12	0.46	5.30
o	Lack of trouble free communication	6.00	0.57	11	+3	14	0.38	4.40

### **4.3 Discussion of Results**

Based on the 'Top 6' impinges identified in Section 4.2.7 (Comparative Analysis from different Points of View), of this report, major causes behind the adverse effect of Blue Collar Workforce were identified and ranked according to the following precedence.

1. Poor retirement benefits
2. Temporary nature of the occupation
3. Lack of social recognition
4. Gray areas in the career development
5. Dissimilarities in salary scales
6. Non-availability of recreation facilities

#### **4.3.1 Poor retirement benefits**

Sri Lanka does not have a structured Social Security System (Dayaratne, 2002) until death of the employers in private sector, corporations, authorities and boards. Hence, at the retirement age, care taking of the senior citizens becomes a liability of their children.

From the beginning of Second World War, government employment opportunities were offered to the educated locals of the country by the British rulers. These employers were offered with lifelong retirement benefit so called as 'pension' in common in order to maintain a respectful life after the end of their service.

From this point onwards, people started educating their children with a view to enter in to a government employment mainly because of the respectful end of service benefits. After the independence in 1948, new local politicians recognised this lifetime retirement benefit as a huge liability to the government. Accordingly, Government Corporations and Boards were introduced to production, marketing, and construction service sector by inducing State Engineering Corporation (SEC), Corporative Wholesale Establishment (CWE), River Valleys Development Board (RVDB) etc. This was the starting point of natural death of government departments such as Public Works Department (PWD), Department of Highways etc. because of



these non pensionable governed structures initially offered attractive salaries and benefits than the government departments. Many people calculated and evaluated the return with the principle of 'One Rupee today is more valuable than the same rupee tomorrow' by totally neglecting the inflation.

From collapse of social security system due to urbanization, the children do not have sufficient income or time to take care of their parents. Hence, working and earning was essential even after the normal retirement age. According to Section 4.2.1 Demographic Characteristics, 6.25% of the Blue Collar Workforce is in the retirement age.

According to 'A Theory of Human Motivation' (Maslow, 1943), afore discussed 6.25% of the average Blue Collars workers should be in the level of Self Actualization (Maslow, 1943). However, they are fighting for basic 'Physiological Needs' such as Air, Water, Food and Sleep (Maslow, 1943) and sometime to fulfill the day to day requirements of their dependents such as grand children or their parents.



University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

Any young sensible person who evaluates this scenario will no doubt think of a different industry as their future sector of carrier. This can be considered as a demoralizing barrier to the Construction Industry.

#### **4.3.2 Temporary nature of the occupation**

Construction projects do not exist for many years. Even a project, which stretches for at least two years, is very difficult to find. People working in the industry are aware of this situation. According to the findings, many workers are all ways looking forward for another hop, step and jump.

According to the Section 4.2.4, (Recruitment Modes of Blue Collar Workforce), 81.45% of the Construction workers have no job security even if they work for the best contractor. Sudden stoppage, suspension or redundancy is always possible due to client related issues. Financial Problems of client is the 'Rank 1' reason for project delays according to the 'Contractors View' (Samarakoon, 2009). In addition. adverse



climatic situations are always proceeding towards sudden stoppage of construction work.

#### **4.3.3 Lack of social recognition**

Social recognition is an inherent problem of the grey areas of the career development and temporary nature of occupation. As addressed in Section 1.7, (Key Findings), a good example is the stories of the people who are leaving the construction industry.

According to the Esteem Needs (Maslow, 1943), recognition, Attention, Social Status, Accomplishment, Self Respect are required to human motivation. Without having a reliable mode of regular income, it is difficult to earn self-respect from society where most of the requirements are valued against financial stability or dress code.

No uniforms are provided for the Blue Collar Workforce and none availability of proper hygienic facilities due to temporary nature of the industry, Hygiene Motivation Theory (Herzberg, 1948) explained in Section 2.10.1.4, activates on most of the construction sites. Due to lack of proper ablution facilities on sites, wearing a proper dress is sometime not practicable for construction Blue Collar workers while traveling in public transport system or in restaurants. Some restaurants use to have various modes of operandi to control entering of construction workers to their restaurants.

#### **4.3.4 Gray areas in career development**

There was no structured carrier development system until the commencement of 'Univotec'. Success rate of the system is not discussable because of its short history and no output is released to the industry yet.

In traditional system, youngsters used to work under an experienced veteran for some time as a trainee. ICTAD and NAB superseded this system after the introduction of their short courses for various construction trades such as masonry, plumbing, joinery etc. This is very similar to the theories in 'Starting Career at Bottom' (Webb, 2001) which are discussed in Section 3.9 of this report.

Due to the scarcity of construction Blue Collar Workers, existing workers had to work under pressure. Many targets and incentives fixed by the management require working additional hours although it is not allowed in the labour ordinance (Dayaratne, 2002).

#### **4.3.5 Dissimilarities in salary scales**

Every construction organization is comprised of various calibers of employees. These employers can be primarily divided into two groups as production workers and service providers.

Production workers contain Engineers to Blue Collar Workforce and service providers are general office, accounts, time keeping, pay clerks etc. Service providers have no barriers to change their industry whenever they want to do so. However, they are used to taking the upper hand and try to administrate the working group all the time.

When compared to salary scales service providers who are working closer with the shareholders draw better remuneration and benefit packages than the productive category. Office boy and light vehicle drivers who are mainly in the air conditioned environment and doing many overtime hours than any hard working Blue Collar worker, maintain good relationship with their immediate senior to get a better return. Since these staffs have free moving benefits, they are not directly related to the industry. Further, they do not love the industry or the people living it.

#### **4.3.6 Non-availability of recreation facilities**

Unlike factory employers, construction industry always has to work with temporary facilities. Many Clients are reluctant to pay high amounts as preliminaries for their projects and usually has heavy negotiations on this at pre contact stage.

Although it is call as temporary, it is the Blue Collar Worker's permanent place of work because they do not leave the industry. Hence, better facilities are essential for the employers similar to the other industries.



#### **4.4 Legal System of Sri Lanka & Ball Passing Technique**

Contractors who obtain service of the Blue Collar Workforce are liable to pay their wages or salaries on time (Dayaratne, 2002). Breach of this is a criminal offence and there is a possibility to sue violators at the courts for default of payment.

However, there is no remedial process or mechanism available in the commonly used 'Standard forms of Contracts' such as FIDIC, ICTAD to sue the Employer (or the Client) of the Contractor for non-payment of certified payments (Advance, Interim, Certificate at Completion or Final Payment). To overcome this situation, many contractors depending on other means of recruiting labour from alternative sources as discussed in Section 4.2.4, Recruitment Modes of Blue Collar Workforce. In all of these subcontract models, main contractor passes his liabilities of labour management to another party. Secondary party, who undertake this subcontract works assign the duties to Blue Collar Workforce on productivity basis.

##### **4.4.1 EPF and ETF**

Due to this sub contracting mechanism, workers automatically become contractors and mislay their fundamental rights allowed in the Legal system of Sri Lanka.

Absolute payer of the labour wages and salaries for Blue Collar Workforce is the person who owns the end product. However, there is no smooth flow or proper mechanism to pay the fundamental rights of the Blue Collar Workforce including their rights to receive EPF & ETF. Furthermore, parts of their due payments are retained further as 'Retention Money' for a certain period, where the workers are not sure of receiving this money when the 'Release of Retention' is due.

##### **4.4.2 Cascade Effects of Risks & Taxes**

Risk is driving force of any business. 'Higher the risk higher the profit' is a common motto among the businesspersons.

In every business transaction, certain amount of markup percentage is added to cover such business risks. When subcontracting philosophy is applied to work done by Blue Collar Workforce, main contractor retain percentage for his risk, another percentage is



kept by the sub contractor and when it reach to the bottom layer of output based employers, only the bones are left to lick.

Similarly, taxes such as NBT (Value Added Tax) give the same reaction of cascade effect by adding a percentage one over the other.

Higher the number of transaction, higher the tax retains and risk retains as shown in Figure 18.

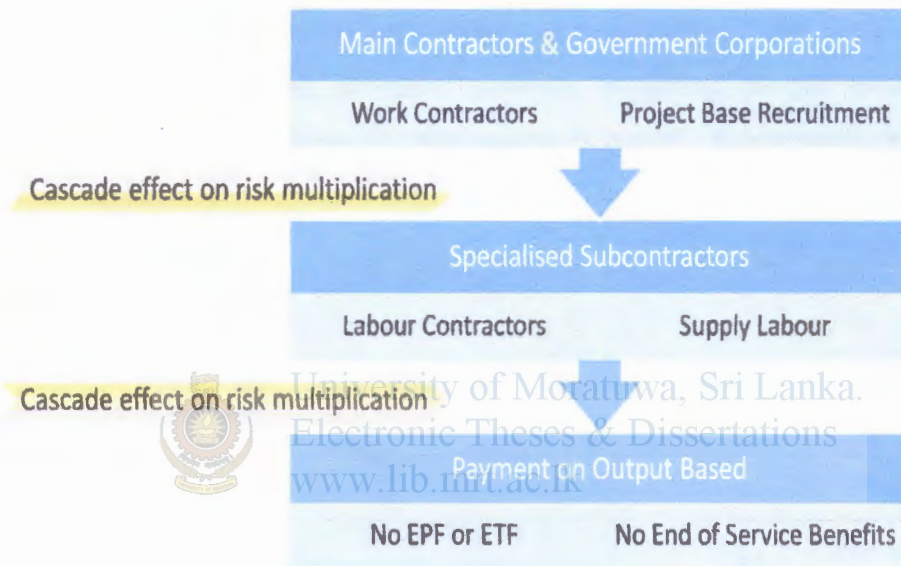


Figure 18: Cascade effect on Risk and Tax Multiplication

#### 4.4.2 Trade Unions

Trade unions do not play any strong role in construction industry except for government corporations, which are having permanent carder of Blue Collar Workforce. Reason for this ill function is the temporary nature of the industry. Even if a worker is employed for 10 years in different worksites under the same employer, the worker is not considered as a permanent employee.

However, behavior of these trade unions is generally to fight for pay hikes only and it is very unfortunate to find a situation that they rarely demanded for a career development or industrial training programme for their union members.

## 4.5 Proposed Models

### 4.5.1 Modified Hierarchy of Human Needs

As the world is changing daily, human requirements too changes daily. Hence, there is no formula, in which all the human related data can be inserted into one model or matrix and the answer can be found.

A system that works for today may not work for tomorrow. Accordingly, 'A Theory of Human Motivation' of A H Maslow, now only works inside the organization to retain them. Once humans enter to any industry or organization, then the old theory starts to work from that point onwards. However, attracting people towards any industry, the most important factor is 'Retirement Benefits'. Accordingly, Modified Hierarchy of Human Needs is shown in Figure 19.

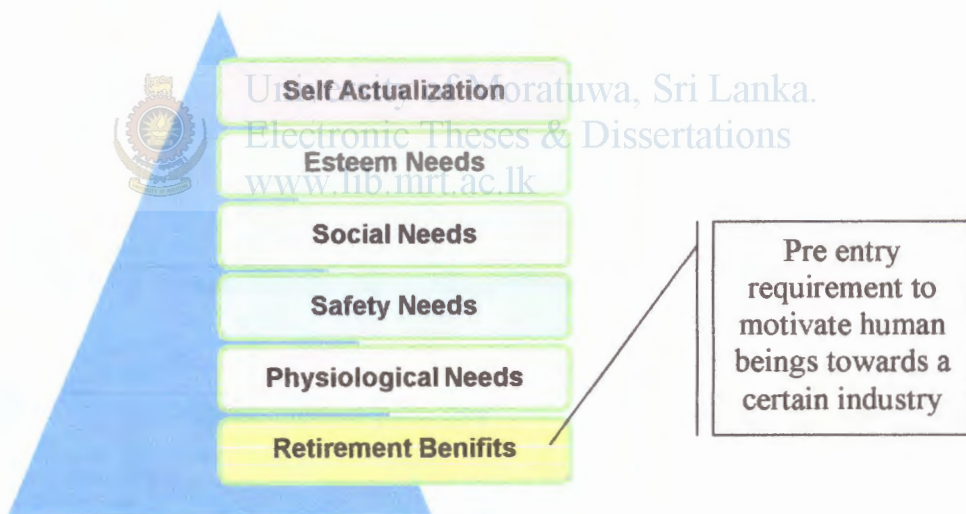


Figure 19: Modified Hierarchy of Human Needs (Wijewickreme, 2010)

In addition to the key factor 'Retirement Benefits', found by this research, all the other identified Difficulties experienced by Blue Collar Workforce too have a reasonable impact as explained in Section 4.2.6, (Difficulties experienced by Blue Collar Workforce). This indicates that human behavior and their needs keep changing and time has come to reconsider the facts explained in some motivational theories.

#### 4.5.2 Concept of 'Building Forces'

Identified Client requirements such as time, cost, quality, aesthetics, flexibility, confidentiality, transparency, accountability and individual requirements are always subject to variations.

When it comes to construction operations, it looks like a war front, working day & night. Hence, construction sector has many similarities to the structure of military forces as shown in Table 13.

Introduction of a completely different phenomenon, always leads to an assortment of arguments, discussions and debates of the various people. As explain in Section 1.1, 'Fundamental theme of the construction industry is to provide secured, long lasting and trouble free setup for relaxing when in need for human being'.

The duty of the security forces is to fight with the enemies, who are trying to destroy the human being and to protect them. Enemy may not always to be another human. It can be either, Wind, Strom, Fire or even a spreading Disease. Following Table 13 contains many similarities between Construction Industry and Security Forces.

**Table 13: Similarity Table between Construction Industry Military Forces**

	<b>Similarity Area</b>	<b>Construction Industry</b>	<b>Military Forces</b>
1	Entrance	Two levels, Professionals & Blue Collar Workers	Two levels, Offices and Other Ranks
2	Service area	Security from whether and natural effects	Human enemies
3	Target	To provide safe and trouble free living environment	To provide safe and trouble free living environment
4	Working Area	Open Air	Open Air
5	Working Time	Day and night for Blue Collar workers and for some selected White Collar offices	Day and night for Other Ranks and some selected Ranked Offices
6	Supervised by	Consultants	NGO's
7	Specialty Area	Fit for Physical work	Fit for Physical work





Flowing Table 14 shows a comparison of difficulties experienced by Blue Collar Workforce of Construction Industry between the Military Forces

**Table 14: Difficulties between Construction and Military employers**

	<b>Cause of Effect</b>	<b>Construction Industry</b>	<b>Military Forces</b>
a	Social recognition	Low	High
b	Nature of the occupation	Temporary	Permanent
c	Behaviors of the immediate supervisor	Low	High
d	Career development opportunities	Low	High
e	Interpersonal relationships	Low	High
f	Dissimilarities in salary scales	High	Low
g	Political & social influences	Low	High
h	Influence from the dependents	Low	High
i	Gender balance	Very Low	Low
j	Safety & sanitary facilities	Low	High
k	Retirement benefits	Low	High
l	Recreation facilities	Low	High
m	Being away from family and relatives	High	High
n	Lack of trouble free communication	Very Low	Low

However, every practice in one organization cannot be transferred to another organization as it is but best suitable factors and models can be used to develop a suitable structure. Findings of this research can be utilized while developing such a structure.

## **Chapter 5 - Conclusions and Recommendations**

### **5.1 Conclusion**

Professionals such as Client Advisors, Architects, Engineers, Quantity Surveyors, Planning Engineers, Contract Administrators, Builders, Contractors, etc. are working towards the future of the industry. Series of professional bodies are supporting them to develop their career status stanchion with CPD's, Seminars, Exhibitions, Award Ceremonies, AGM's, Day outings, Dinners and so on.

Although there are thousands of Research Papers available in various means of publishing, I was unable to locate a single article addressing how to motivate people towards the core layer of the Construction Industry or to discuss the problems that are being experienced by the foundation stones of the industry.

Fundamental concern of the research was, what will happen to the industry, if we keep on neglecting the people who bring the Desires of Clients, blended with innovativeness of Architects, strengthened by Engineers, enumerated by Quantity Surveyors, documented by Contract Administrators into reality according to the sequence of Planning Engineers by Builders and Contractors, if no proper Blue Collar Workforce is available.

Following key causes & effects were recognised related to the Construction Industry.

1. Stakeholder Dissatisfaction Areas
  - a) Untimely Completion
  - b) Collapse of Relations
  - c) Disappointment
  - d) Cost Overrun
  - e) Poor Quality
  - f) Disputes & Claims
  - g) Mitigation
  - h) Litigation
  - i) Arbitration
  - j) Total abandonment

2. Behavioral Problems of Blue Collar Workforce (Precedence according to Management point of view)

- a) High labour turnover
- b) Poor quality of workmanship
- c) Temporary or irregular attendance
- d) Lack of trade knowledge and skill
- e) Lack of cost concerns
- f) Irresponsibility & lack of reliability
- g) Unfair demanding of wages or rates
- h) Adamant behavior & lack of loyalty
- i) Reluctant to learning & training
- j) Carelessness & safety concerns
- k) Unethical sudden demanding

3. Difficulties experienced by Blue Collar Workforce (Precedence according to Blue Collar Workforce point of view)

- a) Poor retirement benefits
- b) Dissimilarities in salary scales
- c) Gray areas in the career development
- d) Temporary nature of the occupation
- e) Lack of social recognition
- f) Non availability of recreation facilities
- g) Being away from family and relatives
- h) Political & social influences
- i) Safety & sanitary facilities
- j) Interpersonal relationships
- k) Lack of trouble free communication
- l) Influence from the dependents
- m) Improper gender balance
- n) Behaviors of the immediate supervisor

Finding a good matrix was the aim of this research, which could address and find answers to the above areas.

According to the findings of this research, it can be concluded that Blue Collar Workforce will not be a commodity anymore. They have to be considered as a partner of the industry. As partners of construction industry, they will become eligible to share profits. The best profit that they are looking as at present is 'Retirement Benefit'.

If the retirement benefits are fair and reasonable in any organization, industry, or country, then there will be no short supply of any category of human resource requirement. As explained in Section 4.5, (Proposed Model) there can be several mechanisms to provide as either a 'Typical Pension' or 'Social Security System' or any other tailor made system which corresponds with the religion, social and economic pattern of the country.

## **5.2 Future Research Areas**

Following areas were recognized as future research areas during this research.

### **5.2.1 Negative Factors for Stakeholder Satisfaction**

External negative factors such as Social Impacts, Environmental effects and Political influences etc are to be studied in depth to recognize pros and cons of such issues. Further, it was noticed that these effects are high on *Developed Environment*<sup>8</sup> projects than the *Built Environment*<sup>9</sup> projects.

### **5.2.2 Education System of Sri Lanka**

Education system of the country is to be reviewed in depth because producing of graduates without planning for future requirements will not give anything in return to the country other than a bundle of unemployed graduates. In 2008, UGC of Sri Lanka had admitted 18,713 under graduate students to 74 various Courses of Study (UGC, 1998). These course structures are required to be evaluated against the productive contribution to the nation.

---

<sup>8</sup> Development of gifts of nature such as Seegiriya, Dambulla, Varana etc. (Wijewickreme, 2010)

<sup>9</sup> Virgin Constructions



## References

1. Answers.Com. (2004, 01 01). *New Answers*. (J. Wales, Editor) Retrieved 1 1, 2009, from Wiki Answers: [www.answers.com](http://www.answers.com)
2. Beers, C. V. (2009). *Determination of Innovative Behavior*. hampshire: Macmillan Publishers.
3. Bernard Taylor, G. L. (1975). *Management Development & Training Handbook*. (G. L. Bernard Taylor, Ed.) London: McGraw Hill Book Company (UK) Limited.
4. CBSL. (2007, 01 01). *CBSL Publications*. Retrieved 10 14, 2009, from Central Bank of Sri Lanka: [www.cbsl.gov.lk](http://www.cbsl.gov.lk)
5. Cervino, J. a. (2005). Hotel Management in Cuba and the transfer of best practices. *International Journal of Contemporary Hospitality Management* , Volume 17 (6), 455 - 468.
6. CIA World Factbook. (2003, October 01). *Unemployment Rate*. Retrieved November 30, 2009, from Index Mundi: [www.indexmundi.com](http://www.indexmundi.com)
7. Cole, G. A. (1996). *Management Theory & Practice* (5 ed.). Longdon: Letts Educational Publishers.
8. Dae-seok Kang, J. S. (2007). Leader-member exchange (LMX) theory of leadership and HRD. *Leadership & Organization Development Journal* , 28 (6), 531-551.
9. Dayaratne, N. K. (2002). Paymnet of Gratuity Act. In S. Hulugalle, & J. Abeywickreme (Ed.), *Understanding LabourLaw* (Second ed., pp. 95 - 110). Colombo, Sri Lanka: Ministry of Employment and Labour.
10. DCSL. (2000, November 30). *Unemployment Percentages*. Retrieved 11 13, 2009, from Department of Census and Statistics Sri Lanka: <http://www.statistics.gov.lk>
11. Ericdigest. (2003, 02 01). *Gold Collar Workers*. Retrieved 4 1, 2009, from Ericdigest: [www.ericdigests.org](http://www.ericdigests.org)
12. FIDIC. (1999). *General Conditions of Contracts for Construction*. International Federation of Consultaing Engineers.
13. Herzberg, F. (1948). *Work Motivation: History, Theory, Research, and Practice*. (G. P. Latham, Ed.) California, USA: Sage Publication Inc.
14. John Murdoch, W. H. (1992). *Construction Contracts* (Third ed.). London: E & F N Spon Press.
15. Jong, J. P. (2007). How leaders influence employee's innovative behavior. *European Journal of Inovation management* , 10 (1), 41 - 64.
16. Julio Cervino, J. B. (2005). Hotel management in Cuba and the transfer of best practices. *International Journal of Contemporary Hospitality Management* , 17 (6), 455 - 468.
17. Lee, S. (2001, January 31). Assignment Comment. Reading, Breakshire, UK: University of Reading.
18. M. Pina e Cunha, R. C. (2009). Managers Doing Leadership: The Extra-Ordinarization of the Mundane. *Sage Journals* , 5 (1), 81 - 101.
19. Marslow, A. T. (1943). *A Theory of Human Motivation*. Retrieved May 14, 2009, from Abraham Maslow - Father of Modern Management Psychology: <http://www.abraham-maslow.com/amIndex.asp>
20. People's Daily. (2003, 12 08). *What's Online in China*. Retrieved 10 14, 2009, from People's Daily Online: <http://english.peopledaily.com.cn>

21. Phillips, J. M. (1998). Antecedents of Leader Utilization of Staff Input in Decision Making Teams. *Organizational Behavior and Human Decision Process* , 77, 215 - 242.
22. PMBOK. (2004). *Project Management Body of Knowledge*. (Third, Ed.) Newtown Square, Pennsylvania: Project Management Institute, Inc.
23. Pyoria, P. (2005). Information technology, human relations and knowledge work teams. *Team Performance Management* , 11 (3/4), 104 - 112.
24. Robert V Krejcie, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement* , 30, 607 - 610.
25. Samarakoon, S. M. (2009). *MBA Research Thesis, Causes and Effects on Delays in Medium Scale Building Construction Projects in Sri Lanka*. University of Moratuwa, Department of Civil Engineering.
26. Silva, P. (2009). *Hela Ratawata Iwum Pihum*. Colombo: Sarasavi Book Shop.
27. Stoner, J. A. (1999). *Management* (6 ed.). London: Prentice Hall.
28. Thompson, A. (1990). *Architectural design procedures*. London: Edward Arnold.
29. Trice, H. M. (1993). Charisma & leadership in organizations. *Administrative Science Quarterly* , 38, 492 - 494.
30. Turk, W. (2008, July 1). *Common Sence Project Management*. Retrieved May 21, 2009, from The Free Library by Farlex: <http://www.thefreelibrary.com/Motivate+your+people+for+project+success>
31. UGC. (1998, 05 21). *About Us*. Retrieved 12 10, 2009, from University Grants Commission: [www.ugc.ac.lk](http://www.ugc.ac.lk)
32. Webb, R. L. (2001, 12 7). *Starting Carrier at Bottom*. Retrieved 11 25, 2008, from Blue Collar World: <http://www.motivation-tools.com/>
33. Wellington Didibhuku Thwala, L. N. (2008). *Motivation as a tool to Improve Productivity on the Construction Site*. University of Johannesburg, Department of Quantity Surveying and Construction Management. Johannesburg: University of Johannesburg.
34. Wijewickreme, S. P. (2010). *MSc Research Thesis, Motivating Blue Collar Workforce towerds Construction Industry*. University of Moratuwa, Department of Civil Engineering.
35. Wikipedia Encyclopedia. (2003, 01 01). *Blue Collar Workers*. (J. Wales, Editor) Retrieved 4 4, 2009, from Wikimedia Foundation, Inc.: [www.wikipedia.org](http://www.wikipedia.org)
36. Wikipedia Encyclopedia. (2003, 02 01). *Green Collar Jobs*. Retrieved 6 16, 2009, from Wikimedia Foundation, Inc.: [www.wikipedia.org](http://www.wikipedia.org)
37. Wikipedia Encyclopedia. (2003, 01 01). *Pink Collar Worker*. Retrieved 4 1, 2009, from Wikipedia Encyclopedia: [www.wikipedia.org](http://www.wikipedia.org)
38. [www.abraham-maslow.com](http://www.abraham-maslow.com). (2009). Biography.
39. Yuki, A. G. (2008). *Leadership in Organizations*. San Mateo, CA 94404: Prentice Hall Publishers.

## **Appendices**

	<b>Title</b>	<b>Appendix</b>	<b>Pages</b>
1	Construction Company Directors - Form 'A'	A	1/6 to 6/6
2	Construction Site Managers - Form 'B'	B	1/5 to 5/5
3	Site Staff - Technical - Form 'C'	C	1/2 to 2/2
4	Blue Collar Workforce - Form 'D' - English	D - English	1/1
5	Blue Collar Workforce - Form 'D' - Sinhala	D - Sinhala	1/1
6	Blue Collar Workforce - Form 'D' - Tamil	D - Tamil	1/1



University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)



Declaration: Collected data will not be passed on to any third party and used solely for the purpose of the study only.

**1. How did you enter in to the construction industry? (Tick one)**

- a. Formal Education
- b. Family business
- c. Childhood dream
- d. Parental influence
- e. Money making option
- f. National theme
- g. Accidental fortune
- h. Other



University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

**2. Do you prefer to select construction industry as your children's future profession?**

- |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| Yes                      | No                       | Not<br>Applicable        |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**3. If 'NO' is your answer to the Q2, what are the disadvantages as your view?**

---

**4. If 'YES' is your answer to the Q2, what are the advantages as your view?**

---



5. **What is the most difficult task to achieve in respect of client / employer satisfaction from the following?** (Tick “√” the most important)

- a. Time
- b. Cost
- c. Quality
- d. Operational Sequence
- e. Aesthetics
- f. Flexibility
- g. Confidentiality

6. **What are the other difficult tasks to achieve in respect of client / employer satisfaction?**



University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

- Other 1
- Other 2
- Other 3

7. **What is the most important resource requirement in respect of client / employer satisfaction?** (Tick “√” the most important)

- a. Manpower - Skilled & unskilled Blue Collar workforce
- b. Methodology - Technical knowledge
- c. Management - Resource coordination
- d. Machinery
- e. Material
- f. Monetary
- g. Other 1



**8. How do you fulfill your manpower requirements?**

	Degree of importance						
	Low		Mid			High	
	1	2	3	4	5	6	7
a. Direct Labour - Permanent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Direct Labour - Casual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Direct Labour - Contract / Project basis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Labour subcontractors - Output based	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Labor supply contractors - Head counting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Other 1 <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Other 2 <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**9 Do you offer work targets / extra overtime hours to your direct Blue Collar workers given in Q6 (a), Q6 (b), Q6 (c) and Q6 (e) above?**

- a.  No
- b.  Sometimes
- c.  Most of the time
- d.  Always
- e.  Skip question

**10. Do you monitor EPF /ETF payments & welfare of the Blue Collar workers given in Q6 (a), Q6 (b) and Q6 (c) above?**

- a.  No
- b.  Sometimes
- c.  Most of the time
- d.  Always
- e.  Skip question



**11. Do you monitor EPF /ETF payments & welfare of the Blue Collar workers given in item Q6 (d) and Q6 (e) above?**

- a.  No
- b.  Sometimes
- c.  Most of the time
- d.  Always
- e.  Skip question

**12. What are the difficulties that you experienced / are experiencing due to the behavior of the Blue Collar workforce in your organisation?** (Weigh the range by giving "1 for low" importance and "7 for high" importance)

	<b>Degree of importance</b>								
	Low				Mid				High
	1	2	3	4	5	6	7		
a. Poor quality of workmanship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
b. Lack of cost concerns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
c. Carelessness & lack of concern for safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
d. Lack of trade knowledge and skill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
e. Poor, temporary or irregular attendance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
f. Reluctant to learn / undergo training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
g. Irresponsibility & lack of reliability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
h. Adamant behavior & lack of loyalty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
i. High labour turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
j. Unfair demanding of wages / labour rates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
k. Unreasonable / unethical sudden demanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
l. Other 1 <input style="width: 150px; height: 15px;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
m. Other 2 <input style="width: 150px; height: 15px;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
n. Other 3 <input style="width: 150px; height: 15px;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		





**13. What could be the difficulties that blue collar workforce are experiencing as at present?** (Weigh the range by giving "1 for low" importance and "7 for high" importance)

	Degree of importance						
	Low		Mid			High	
	1	2	3	4	5	6	7
a. Lack of social recognition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Temporary nature of the occupation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Behaviors of the immediate supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Gray areas in the career development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Interpersonal relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Insufficient income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Dissimilarities in salary scales	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Political & social influences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Influence from the dependents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Improper gender balance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Safety & sanitary facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Poor retirement benefits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Non availability of recreation facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Being away from family and relatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Lack of troublefree communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Other 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Other 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
r. Other 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s. Other 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
t. Other 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



**14. What are your opinions to overcome the difficulties that are being experienced by the Blue Collar workforce in Sri Lanka today?**

---

---

**15. In your point of view, what are the other problems in the industry today?**

---

**16. General Information** (Please fill only if you wish to do so)

a. Name

b. Position

c. Age

Years

d. Other information

e. Years of experience in the construction industry

Years

f. Working organisation

g. Years of Experience with current organisation

h. Contact Details

i. Address

ii. Telephone

iii. Mobile

iv. Facsimile

v. Email

vi. Web



University of Moratuwa, Sri Lanka.  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)



Declaration: Collected data will not be passed on to any third party and used solely for the purpose of the study only.

**1. General Information**

a. Name

b. Position

c. Age  Years

d. Education

e. Years of experience in the construction industry  Years

f. Working organization

g. Contact Details

i. Address

ii. Telephone

iii. Mobile

iv. Facsimile

v. Email



**2. How did you enter in to the construction industry? (Tick one)**

a. Formal Education

b. Childhood dream

c. Parental influence

d. Money making option

e. National theme

f. Accidental fortune

g. Other



**3. What is the most difficult task to achieve in respect of client / employer satisfaction from the following?** (Tick "√" the most important)

- a. Time
- b. Cost
- c. Quality
- d. Operational Sequence
- e. Aesthetics
- f. Flexibility
- g. Confidentiality

**4. What are the other difficult tasks to achieve in respect of client / employer satisfaction?**

Other 1

Other 2

Other 3



University of Moratuwa, Sri Lanka.

Electronic Theses & Dissertations

[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)

**5. What is the most important resource requirement in respect of client / employer satisfaction?** (Tick "√" the most important)

- a. Manpower - Skilled & unskilled Blue Collar workforce
- b. Methodology - Technical knowledge
- c. Management - Resource coordination
- d. Machinery
- e. Material
- f. Monetary
- g. Other 1



**6. How do you fulfill your manpower requirements?**

	Degree of importance						
	Low		Mid			High	
	1	2	3	4	5	6	7
a. Direct Labour - Permanent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Direct Labour - Casual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Direct Labour - Contract / Project basis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Labour subcontractors - Output based	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Labor supply contractors - Head counting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Other 1 <input style="width: 200px;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Other 2 <input style="width: 200px;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**7. Do you offer work targets / extra overtime hours to your direct Blue Collar workers given in Q6 (a), Q6 (b), Q6 (c) and Q6 (e) above?**

- a.  No
- b.  Sometimes
- c.  Most of the time
- d.  Always
- e.  Skip question

**8. Do you monitor EPF /ETF payments & welfare of the Blue Collar workers given in Q6 (a), Q6 (b) and Q6 (c) above?**

- a.  No
- b.  Sometimes
- c.  Most of the time
- d.  Always
- e.  Skip question



**9. Do you monitor EPF /ETF payments & welfare of the Blue Collar workers given in item Q6 (d) and Q6 (e) above?**

- a.  No
- b.  Sometimes
- c.  Most of the time
- d.  Always
- e.  Skip question

**10. What are the difficulties that you experienced / are experiencing due to the behavior of the Blue Collar workforce in your organisation?** (Weigh the range by giving "1 for low" importance and "7 for high" importance)

		<b>Degree of importance</b>						
		Low		Mid			High	
		1	2	3	4	5	6	7
a.	Poor quality of workmanship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Lack of cost concerns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Carelessness & lack of concern for safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Lack of trade knowledge and skill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Poor, temporary or irregular attendance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f.	Reluctant to learn / undergo training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g.	Irresponsibility & lack of reliability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h.	Adamant behavior & lack of loyalty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i.	High labour turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j.	Unfair demanding of wages / labour rates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k.	Unreasonable / unethical sudden demanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l.	Other 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m.	Other 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n.	Other 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





**11. What could be the difficulties that blue collar workforce are experiencing as at present?** (Weigh the range by giving "1 for low" importance and "7 for high" importance)

	Degree of importance						
	Low		Mid			High	
	1	2	3	4	5	6	7
a. Lack of social recognition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Temporary nature of the occupation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Behaviors of the immediate supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Gray areas in the career development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Interpersonal relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Insufficient income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Dissimilarities in salary scales	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Political & social influences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Influence from the dependents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Improper gender balance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Safety & sanitary facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Poor retirement benefits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Non availability of recreation facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Being away from family and relatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Lack of troublefree communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Other 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Other 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
r. Other 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s. Other 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
t. Other 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Declaration: Collected data will not be passed on to any third party and used solely for the purpose of the study only.

**1. General Information**

Name

Position

Age

Years

Mobile

Address

Email

**2. What are the difficulties that you experienced / are experiencing due to the behavior of the Blue Collar workforce in your organisation?** (Weigh the range by giving "1 for low" importance and "7 for high" importance)

	Degree of importance						
	Low		Mid			High	
	1	2	3	4	5	6	7
a. Poor quality of workmanship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Lack of cost concerns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Carelessness & lack of concern for safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Lack of trade knowledge and skill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Poor, temporary or irregular attendance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Reluctant to learn / undergo training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Irresponsibility & lack of reliability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Adamant behavior & lack of loyalty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. High labour turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Unfair demanding of wages / labour rates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Unreasonable / unethical sudden demanding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Other 1 <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Other 2 <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



**Questionnaire Form 'C'**

3 **What could be the difficulties that blue collar workforce are experiencing as at present?** (Weigh the range by giving “1 for low” importance and “7 for high” importance)

**Degree of importance**

	Degree of importance						
	Low			Mid			High
	1	2	3	4	5	6	7
a. Lack of social recognition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Temporary nature of the occupation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Behaviors of the immediate supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Gray areas in the career development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Interpersonal relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Insufficient income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Dissimilarities in salary scales	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Political & social influences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Influence from the dependents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Improper gender balance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Safety & sanitary facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Poor retirement benefits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Non availability of recreation facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Being away from family and relatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Lack of troublefree communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Other 1 <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Other 2 <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4 **What are your suggestions to overcome the difficulties that experiencing by the construction workforce in Sri Lanka today?**



**1. General Information**

Name			
Age	Years	Experience	Years
Trade	Mobile		
Address			

**2. What are the difficulties that you are experiencing as at present as a construction worker? (Weigh the range by giving "1 for low" importance and "7 for high" importance)**

	Degree of importance						
	Low		Mid			High	
	1	2	3	4	5	6	7
a. Lack of social recognition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Temporary nature of the occupation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Behaviors of the immediate supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Gray areas in the career development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Interpersonal relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Insufficient income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Dissimilarities in salary scales	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Political & social influences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Influence from the dependents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Improper gender balance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Safety & sanitary facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Poor retirement benefits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Non availability of recreation facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Being away from family and relatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Lack of troublefree communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Other 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Other 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Research Project on  
**Motivating Blue Collar Workforce Towards Construction Industry**  
 Conducted By Sujeeva P Wijewickreme & Supervised By Dr Lesley L Ekanayake

Master of Science in Construction Project Management  
 Department of Civil Engineering, University of Moratuwa, Sri Lanka

**Questionnaire Form 'D' - Sinhala**

1. සාමාන්‍ය තොරතුරු

නම

වයස අවුරුදු

පළපුරුද්ද අවුරුදු

වෘත්තීය

උරුමය

ලිපිනය

2. ඉදිකිරීම් වෘත්තිකයෙකු වශයෙන් ඔබ ඈතට අත්විඳිනු ලබන දුෂ්කරතාවයන් කවරේද ?

(වැදගත් බවේ ප්‍රමාණය අනුව " අඩුම 1" ද " වැඩිම 7" ද වන පරිදි "√" ලකුණ සලකුණු කරන්න)

	වැදගත් බවේ ප්‍රමාණය						
	අඩු		මධ්‍යම			වැඩි	
	1	2	3	4	5	6	7
a. සමාජය තුළ වෘත්තීය පිළිගැනීම අඩුවීම	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. වෘත්තියේ ඇති නාවකාලික ස්වභාවය	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. ඔබගේ වැඩ පරිසරය මහතුන්ගේ ක්‍රියා කලාපය	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. වෘත්තීය නිපුණතා වැඩි දියුණු කිරීමට ක්‍රමයක් නැතිවීම	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. එකට වැඩ කරන සේවකයන්ගේ ක්‍රියා කලාපය	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. ආදායම මදිවීම	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. වැටුප් විෂමතාවය	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. දේශපාලන හා සාමාජීය බලපෑම්	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. ඔබගේ පවුලේ සාමාජිකයන්ගේ බලපෑම්	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. ස්ත්‍රී / පුරුෂ සමතුලිතතාවය අඩුවීම	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. සහිතාරක්‍ෂක හා ආරක්‍ෂක තත්වය	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. විශ්‍රාම වයසේදී ප්‍රතිලාභ මද බව	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. වැඩ බිම්වල ඇති පහසුකම් මද වීම	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. පවුල්වලින් ඇතිව සේවය කිරීමට සිදුවීම	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. අදහස් හුවමාරු කර ගැනීමේ දුෂ්කරතා	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. වෙනත් 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. වෙනත් 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**1. பொதுவான விபரங்கள்**

பெயர்

வயது

பிரிவு

விலாசம்

வருடங்கள்

அனுபவம்

வருடங்கள்

தொலைபேசி

**2. நீங்கள் தற்பொழுது அனுபவிக்கும் பிரச்சனைகள் எவை? (பதிலை 1 முதல் 7 வரை தரப்படுத்தவும். அதிமுக்கியமாயின் 7 என்றும் முக்கியமற்றதாயின் 1 என்றும் குறிப்பிடவும்.)**

முக்கியத்துவ தரம்

குறைவு நடுத்தரம் உச்சம்.

1 2 3 4 5 6 7

a. சமுதாயத்தில் அங்கீகரிக்கப்படாமை

b. தொழில் நிரந்தரமின்மை

c. நேர் மேற்பார்வையாளரின் நடத்தை

d. தொழில் முன்னேற்றத்தில் தெளிவின்மை

e. தொழிலாளர்களிடையில் உள்ள உறவு முறை

f. குறைவான வருமானம்

g. சம்பள முரண்பாடுகள்

h. அரசியல் மற்றும் சமுதாயத் தாக்கங்கள்

i. தங்கியுள்ளோரினால் ஏற்படும் தாக்கங்கள்

j. ஆண் பெண் சமபலமின்மை

k. பாதுகாப்புக்கும் உடல் நலத்துக்குமான வசதிகள்

l. அதி குறைந்த இளைப்பாறல் நன்மைகள்

m. பொழுது போக்கு வசதிகள் இல்லாமை

n. குடும்பத்தினரையும் உறவினர்களையும் பிரிந்திருத்தல்

o. பிரச்சனையற்ற தகவல் பரிமாற்றமின்மை

p. வேறு 1

q. வேறு 2