A STUDY ON SAFETY AND WELFARE MEASURES PROVIDED IN RENU & CO. GRANITES, SALEM.

A PROJECT REPORT

submitted

by

S.SUDHA

Reg. No . 0720400049

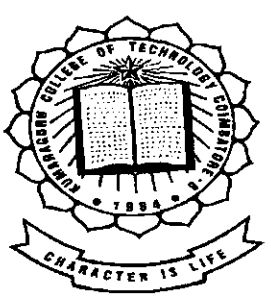
in partial fulfillment of the requirements of

Anna University-Coimbatore

KUMARAGURU COLLEGE OF TECHNOLOGY(AUTONOMOUS)

for the award of the degree of

MASTER OF BUSINESS ADMINISTRATION



DEPARTMENT OF MANAGEMENT STUDIES

KUMARAGURU COLLEGE OF TECHNOLOGY

JULY 2008

DEPARTMENT OF MANAGEMENT STUDIES
KUMARAGURU COLLEGE OF TECHNOLOGY
COIMBATORE

BONAFIDE CERTIFICATE

Certified that this project titled **"A STUDY ON SAFETY AND WELFARE MEASURES PROVIDED IN RENU & CO. GRANITES, SALEM"** is the bonafide work of **Ms. S.SUDHA** who carried out this project under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Director **Faculty Guide**

Evaluated and viva-voce conducted on .....

Examiner I **Examiner II**

:33052843134
r:781593

Renu & Co.,

Phone : 0427-2334146
Cell : 94430 - 90939
99449 - 70939

(GRANITES)
Products: *GRANITE TILES & SLABS*
Office : 4/214, Vivekanandar Nagar, Omalur Main Road, Salem - 636 004.

Date: 1.9.08

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. S.SUDHA,(** Roll No.**07MBA49**) from **Kumaraguru College of Techonology** has successfully completed her project entitled " **A Study on safety and welfare measures provided in RENU & CO GRANITES.** " during the period (1.7.08) to (20.7.08) in our concern.

During this period her conduct and character was good. We wish her all success in her future endeavors.

For RENU & Co., GRANITES

Proprietor

Project Manager

Factory : Plot No. 131, **Sidco Womens Industrial Park,**
Karuppur (Po), Omalur Tk, Salem - 636 011. **Cell : 98656-92189**

DECLARATION

I hereby declare that the dissertation entitled **"A STUDY ON SAFETY AND WELFARE MEASURES PROVIDED IN RENU & CO. GRANITES, SALEM"** submitted for the **MASTER OF BUSINESS ADMINISTRATION** degree is my original work and the dissertation has not formed the basis for the reward of any Degree, Associate ship, Fellowship or any other similar titles.

3.10.08

Signature of the student

With date

ACKNOWLEDGEMENT

I express my sincere gratitude to our beloved Correspondent **Mr.M.Balasubramaniam** the prime guiding spirit of Kumaraguru College of Technology.

I extend my heartfelt thanks to our Principal **Dr. Joseph V. Thanikal,** Kumaraguru College of Technology , for providing the facilities to do this project.

Great honor and indebt gratitude to the Director **Dr.S.V.Devanathan** and my inspiring guide **Mr.S. Mohanavel SL/MBA** , who have taken great interest in helping me on and often in the successful pursuit of my project. I am very much fortunate to get such a good guide, who encouraged me constantly with good counsel and helped me to complete the project successfully on time.

I express my heartfelt gratitude to **Mr.R.Gunasekar Project Manager.,** Renu & Co. Granites , Salem, for giving me an opportunity for doing the project in their esteemed organization and encouraged me with this expert counseling and guidance for successful completion of my research study.

I also extend my heartfelt gratitude to all the **Employees of Renu & Co. Granites, Salem,** for furnishing the information needed and being very accommodative in all aspects.

Above all, I thank **Almighty God and My Parents** for giving me the grace and constant support in successfully completing this project to the best of my ability.

EXECUTIVE SUMMARY

Satisfaction involves doing the job with enthusiasm. The employees will feel more comfortable with both physically and mentally. As a manufacturing industry the company should provide safety and welfare measures to the employees in an organization. The satisfied employees are more loyal to the organization and they will create a good working environment inside the organization through interpersonal relationship between the employees.

Safety is the state of being "safe" , the condition of being protected against physical, social, spiritual, financial, political, emotional, occupational, psychological, educational or other types or consequences of failure, damage, error, accidents, harm or any other event which could be considered non-desirable. This can take the form of being protected from the event or from exposure to something that causes health or economical losses. Eliminating all risk, if even possible, would be extremely difficult and very expensive. A safe situation is one where risks of injury or property damage are low and manageable.

Safety is generally interpreted as implying a real and significant impact on risk of death, injury or damage to property. In response to perceived risks many interventions may be proposed with engineering responses and regulation being two of the most common.

Probably the most common individual response to perceived safety issues is insurance, which compensates for or provides restitution in the case of damage or loss. Safety is often seen as one of a group of related disciplines: quality, reliability, availability, maintainability and safety.

Welfare provision refers to any program which seeks to provide a minimum level of income, service or other support for many marginalized groups such as the poor, elderly, and disabled people.

The study assumes the characteristics of exploratory research. The study has taken in to account of 70 employees in the organization. Data were collected from the respondents using specially designed questionnaire. The questions related to personal profile, job profile, factors leading to job satisfaction etc. are focused on the questionnaire. The data collected were analyzed using various statistical techniques. The finding reveals majority of the respondent feel that the following factors are very important: communication and information in organization, organization goals, relationship with organization, ream co-ordination, working hours and all the facilities included in the questionnaire.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

INTRODUCTION

1.1 BACK GROUND OF THE STUDY:

Safety is the state of being "safe" , the condition of being protected against physical, social, spiritual, financial, political, emotional, occupational, psychological, educational or other types or consequences of failure, damage, error accidents or harm or any other event which could be considered non-desirable. This can take the form of being protected from the event or from exposure to something that causes health or economical losses. It can include protection of people or of possessions.

Welfare may refer to well-being, quality of lifestyle.

Granite is a very hard crystalline, igneous or metamorphic rock primarily composed of feldspar, quartz and lesser amounts of dark minerals. India has vast resources of granite with about 110 varieties of different colours and textures such as black, grey, pink, multi coloured etc. These varieties are used to produce monuments, building slabs, titles, surface plates etc. About 110 variety of granites have been identified for processing as products for exports. The deposits are widely spread over the entire country. However, popular varieties are mainly found in South India.

Granite is a non-scheduled industry and hence entrepreneurs are only required to submit Industrial Entrepreneur Memorandum. Looking at its .export potential, Government of India has been encouraging setting up of 100% Export Oriented Units in this sector to promote export of value added granite products.

Export of Granite and Marble is freely allowed. Granite is exported mainly to Japan, USA, UK, Germany, Netherlands, Italy and West Asia.

Satisfaction may be defined as an attitude or feeling that helps in maintaining morale in any industry. It is a general perception that a person is satisfied if he gets something additional and significant for the work he does. Satisfaction shows the overall attitude of the staffs towards the workers in the organization and to the social groups in large. Satisfaction is in regards to ones feeling or state of mind regarding the work.

Satisfaction with various facets of the job directly and positively influences different dimensions of organizational commitment. Satisfaction is a very important attitude which if frequently measured in organization. It is an undeniable fact that the future of business enterprise depends upon the satisfaction level of its work force.

Attracting the most qualified staffs and matching them to the jobs for which they are best suited is important for the success of any organization. All around acceptance of the concept of job satisfaction has been mainly due to the need to provide a better life for the workers, which motivate them to increase the production and also achieve the objectives of the company.

1.2 REVIEW OF LITERATURE:

K.A. Adebiyi, O.E Charles-Owaba, M.A. Waheed[1] had made study related to three personality taxonomies—positive affectivity and negative affectivity (PA and NA), the five-factor model (the "Big Five"), and core self-evaluations—to job satisfaction in an integrative test. In a longitudinal design with multi-source data, results indicated that the traits from all three taxonomies generally were significantly related to job satisfaction, even when the traits and job satisfaction were measured with independent sources. The study extends research on the validation of these frameworks by assessing convergent and discriminate validity issues.

Dr. Jay Wiggan,[2] Says evidence based medicine aims to objectively and continually evaluate all medical interventions with a view to incorporating the knowledge gained into routine healthcare practice. The ultimate goal is to enhance patient care. The most powerful tools used in evidence based medicine are systematic reviews and meta-analyses. However, information on safety is equally important for making informed, evidence based decisions on the value of a given treatment. We evaluated two major medical databases to assess the extent to which therapeutic safety is addressed in systematic reviews and meta-analyses.

---

[1] K.A. Adebiyi, O.E Charles-Owaba, M.A. Waheed." The Dispositional Sources of Job Satisfaction: A Comparative Test" Applied Psychology: An International Review; Jul2008, Vol. 57 Issue 3, page(361-372).

[2]. Dr. Jay Wiggan." Changes in HRM and Job Satisfaction, 1998–2004: Evidence From the Workplace Employment Relations Survey" Human Resource Management Journal; 2008, Vol. 18 Issue 3, page(237-256)

Katherine A. and Wilson-Donnelly[3] say Human error contributes to unsafe practices and accidents more than two thirds of the time in industries such as manufacturing. As such, many organizations take a microlevel approach to addressing workplace safety (i.e., focusing on individual workers). However, it has been argued that organizations should take a broader (i.e., macrolevel) approach to improving workplace safety. Despite the suggested benefits of macrolevel approaches (e.g., positive safety culture), we found that their implementation is lacking in many organizations. Therefore, we developed guidelines to assist in the development of a safety culture that encourages safe practices at all levels of the organization. © 2005 Wiley Periodicals, Inc.

Welch., Jim.[4] says paper that have described and analyzed the coordination and integration of employment and training services, with specific attention given to the coordination of welfare-to-work programs and the workforce development system. Overall, prior research on the coordination of workforce development and welfare programs offers only limited evidence of successful, sustained efforts. Moreover, there appears to be no single model or incentive that promotes successful coordination.

---

[3]Katherine A. Wilson-Donnelly. "Great Work, Genuine Problems" Library Journal 10.11.2007, Volume. 132 Issue 16, Page(26-29)
[4]Welch, Jim. "The Real Reasons Employees Leave and How to Keep the Best" Business Journal 22.02.2008, Volume.22 Issue 8, Page(11-14)

David E. Cantor., [5] *provides several potential research opportunities that can increase* awareness of the importance of improving a firm's workplace safety practices. To inform the Brown typology, the paper follows the procedures described in Carter et al. and Maloni and Carter to conduct the comprehensive review of the safety literature across six logistics and transportation journals. the logistics and transportation safety literature has evolved across the human, operational, and regulatory safety domain across the following journals: International Journal of Logistics Management, International Journal of Physical Distribution & Logistics Management, Journal of Business Logistics, Journal of Supply Chain Management, Transportation Research Part E, and Transportation Journal. The paper identifies 14 future research opportunities within the workplace safety.

Shane H Taylor, DC, *Chairman, Nicole D Arnold.,** [6] discuss the results of uses and usage, safety and educational requirements. Of the 30 articles designated under the category of usage, 3 were rated as Class 1 evidence; 9 studies were classified as Class 2 evidence and 18 were rated as Class 3 evidence. Overall the committee reached consensus that in clinical practice, there is broad application of these procedures. A minority report was written arguing that the reviewer was unable to reach a conclusion about the use of the Activator Instrument other than it is used as a clinical and research tool.

---

[5].DAVID E. CANTOR. "Take this job and love it" Library journal: 21.01.2008, Volume.133 Issue 2 ,Page(36-39)

[6]. Shane H Taylor, DC, *Chairman,** Nicole D Arnold "Academic work Place Satisfaction" College and Research Libraries News, Volume.69 Issue 2 , Page(124-124)

Edzard Ernst et.al., [7] say evidence based medicine aims to objectively and continually evaluate all medical interventions with a view to incorporating the knowledge gained into routine healthcare practice. The ultimate goal is to enhance patient care. The most powerful tools used in evidence based medicine are systematic reviews and meta-analyses.[1] Generally, these studies focus on the efficacy or effectiveness of therapeutic interventions; indisputably, however, information on safety is equally important for making informed, evidence based decisions on the value of a given treatment. We evaluated two major medical databases to assess the extent to which therapeutic safety is addressed in systematic and meta-analyses.

Solomon Bogale Gebre., , [8] Says the construction of dams for a variety of purposes has made significant changes in people's lives. Dams have been constructed for the purpose of food production through irrigation, for hydropower generation, for flood control, for domestic and industrial water supplies, and other human needs. The huge amount of energy stored in the reservoirs created by man also poses serious dangers to society in case of failure of the dams. With the increasing value for safety, especially in developed countries, dams have long been recognized as potential hazards. This makes it necessary to put extra effort in ensuring the safety of dams through out the dam's life cycle. However, excessive safety measures also involve considerable cost. In Norway and many other countries dams have normally been designed to meet the same high safety standards regardless of the consequences of a failure.

---

[7]Edzard Ernst , Max H Pittler "Love the Work, Hate the job" Publisher Weekly:5.5.2008, Volume. 255 Issue 18, Page(58).

[8]. *Solomon Bogale Gebre* "Nursing Generations in the Contemporary Workplace" Public Personnel Management; Summer2008, Vol. 37 Issue 2, page(137-159).

Nancy stark, [9] states that "some devices are made of materials that have been well characterized chemically and physically in the published literature and have a long history of safe use. For the purposes of demonstrating the substantial equivalence of such devices to other marketed products, it may not be necessary to conduct all the tests suggested in the FDA matrix of this guidance." The implication is that a suitable literature survey may suffice to establish substantial equivalence. Investigational device exempion submissions may also require biological-safety reviews. The report of previous investigations must include all prior animal and laboratory testing, including summaries and bibliographies. A 510(k) summary should also include a review of the biological-safety literature when such a review helps support the argument of substantial equivalence. "The summary of adverse safety and effectiveness data . . . should be based upon a reasonable search of all information known or otherwise available. . The ISO/DIS 10993 Part 1--Guidance on Selection of Tests emphasizes that the decision as to whether or not a certain test is performed should be based on the individual characteristics of the material or device under consideration, and that not all tests are necessary or practical for a given material or device. On the other hand, the document also stresses that additional tests not listed in the guidance may be important.

---

[9]Nancy Strak. "Self-scheduling: Facilitate, Don't Control" Nursing Management; Jun2008, Vol. 39 Issue 6, page(12-54).

Lashbrook. W,[10] : say activities driven by ESH concerns can significantly impact electronics manufacturing costs. The inability to account for ESH costs and link them to designs and processes forces many in the industry to make critical business and operational decisions with an incomplete understanding of their ESH economic impact. ESH cost modeling is a tool for use by ESH and engineering during concurrent design activities to evaluate the ESH impacts of product or process design options.

Parylene C[11] **:** say report consists of an introduction giving general technical, chemical, and processing information about the material; a section reviewing the findings on material degradation; a section summarizing the biological-safety data reported in the literature; a section summarizing the medical device reports sent to FDA; a recommended test profile based on *General Program Memorandum G95-1*; a conclusion; and, finally, the references and citations for each item of data mentioned.

Yamagishi [12] Says there are a few other concerns with regard to the biological safety of A-174/parylene Ccoated materials that are not adequately addressed through the ISO/Tripartite standards. These have to do primarily with process control. Final, manufactured product should be examined via appropriate analytical chemistry techniques for the presence of unreacted dimers of para-chloro-xylylene, and the manufacturing process adjusted and controlled so that the dimer is essentially absent.

---

[10]. Lashbrook. W,. "Electronics Technology Manufacturing Solutions " Library journal: 1996, Volume.122 Issue 2 ,Page(239-241)

[11]. Parylene C . "Academic Work Place Satisfaction" College and Research Libraries News, Volume.69 Issue 2 , Page(124-124)

[13]. Yamagishi. "Love the Work, Hate the job" Publisher Weekly:5.5.2008, Volume. 255 Issue 18, Page(58).

Veltri, A [13] Two studies have demonstrated a mortality increase with use of long-acting β-2 agonists in asthmatic patients. They were not well controlled and thus raise the question of whether this mortality increase was the result of using long-acting β-2 agonists as monotherapy or whether there is some rare susceptibility to an untoward effect of this class of medicine.

Harold S. Nelson [14] When inhaled corticosteroids and long-acting β-2 agonists are used in combination, prospective studies demonstrate improvement in asthma control and exacerbation rate. Two studies showed an increase in asthma mortality with long-acting β-2 agonists, but they allowed β-2 agonists to be used as monotherapy and did not address the safety of their appropriate use in conjunction with inhaled corticosteroids.

---

[13] Veltri, A., Kaunanen, Antti. "Workplace Innovations and Employee Outcomes: Evidence from Finland" Industrial Relations; Jul2008, Vol. 47 Issue 3, page(430-459)

[14] Harold S. Nelson "Safety of Long acting Beta-agonists in asthma" Feb2008,Vol 23 Issue 30, page(123-126).

Zeffane, Rachid [15] has made a study that the purpose of this paper is to explore the impact of job satisfaction on employee attendance and conduct. Design/methodology/approach - The approach was to use data from a study on job satisfaction and performance conducted in a utility company operating in the United Arab Emirates. Job satisfaction was measured using the 20-item MSQ (Minnesota Satisfaction Questionnaire) short form. Performance measures were based on the utility company employee performance rating system. Findings - Preliminary analysis of the data revealed significant differences on aspects of job satisfaction and performance between the two gender groups (i.e. males vs females). In general, female respondents were less satisfied with various aspects of their jobs and the job context than their male counterparts. Similarly, they tended to be less performing than their male counterparts on a number of job performance criteria.

---

[15] Zeffane, Rachid., Ibrahim, Mohamed E., Al Mehairi, Rashid. "Exploring the differential impact of job satisfaction on employee attendance and conduct" Employee Relations; 2008, Vol. 30 Issue 3, p237-250.

1.3 STATEMENT OF THE PROBLEM:

Employee Retention is the major challenge for the Granite Industry. The lack of safety and welfare measures provided in the industry leads to low productivity, inability to meet targets, higher training cost etc. One of the most important leading key factors to attrition is dissatisfaction of employees in the work environment. Identifying the factors leading to dissatisfaction of employees and providing the same to meet the expectation of staffs.

1.4 OBJECTIVE OF THE STUDY:

1. To study and analyze the level of satisfaction on safety measures provided to the employees of Renu & Co Granites, salem.
2. To identify the factors influencing the level of satisfaction on welfare measures provided to the employees.

1.5 SCOPE OF THE STUDY:

The scope of the study is to find out the level of satisfaction on safety and welfare measures provided to the staffs in Renu & Co Granites, salem. Out of 100 employees the study is limited to 70 employees in the organization.

1.6 RESEARCH DESIGN:

TYPE OF STUDY:

The study is explorative in nature. This study on " level of satisfaction of employees on safety and welfare measures" identifies the factors leading to the satisfaction of employees on safety and welfare and attempts to capture the gap between the expectation and the satisfaction level of staffs.

SAMPLE DESIGN:

Out of 100 employees in an organization 70 of them are taken to conduct the study.

1.7 DATA COLLECTION METHOD:

Questionnaire is used for the collection of data as it will help us to find out the answers. The questions relating to personal profile of staffs, factors influencing safety and welfare measures provided , expectation and satisfaction levels are included.

1.8 TOOLS OF ANALYSIS:

SPSS be used for analyzing the data collected. The study uses percentage analysis to find out the key factors influencing level of satisfaction of employees on safety and welfare measures provided in the industry.

SPSS

INTRODUCTION:

SPSS stands for Statistical Package For Social Science. SPSS provides powerful statistical analysis and data management syatem in a graphical environment using descriptive analysis menus and simple dialog boxes to do most of work for us. Most task can be done easily by pointing and clicking the mouse.

SPSS FOR WINDOWS:

DATA EDITOR:

A versatile spread sheet like system for defining, entering, editing and displaying data.

VIEWER:

The viewer makes it easy to browse your result, selectively show and hide the output, change display order.

MULTIDIMENSIONAL PILOT TABLE:

The result comes along with multidimensional pilot table. Explore the table by rearranging rows, columns, and layers. Uncover important findings that can get lost in standard report.

HIGH RESOLUTION GRAPHICS:

High resolution, bulk color pie charts, bar charts, histograms, scatter plots, 3D graphs and more are included as standard factors in SPSS.

DATABASE ACCESS:

Retrieve information from database by using the database wizard instead of complicated SQL Queries.

DATA TRANSFORMATION:

Transformation of data features help get your data ready for analysis. We can easily subset data, combine categories and aggregate, merge, split.

APPLICATION OF SPSS:

- Tables and graphics
- Descriptive statistics
- Probability distribution
- Forecasting
- Non parametric test
- Sampling distribution
- Hypothesis testing
- Analysis of variance
- Regression analysis
- Chisquare analysis

LIMITATION OF THE STUDY:

1. Staff did not disclose all details, as they were afraid of their superiors.
2. The study is limited to the staffs in Renu & Co Granites, Salem and the findings will not be applicable to any other industry.

CHAPTER 2

ORGANISATION PROFILE

2.1 History of the Organization:

- Renu & Co Granites, Salem was founded in 1992 by Industry professionals with technical backgrounds and this has helped it grow in its capabilities by leaps and bounds in the last decade of its existence.
- RCG has well experienced and talented workforce. RCG goes the extra mile in providing extensive training and re- training programs so that all employees are aware of the latest developments in their respective fields.
- This Small Scale Granite industry Located in salem town, South India manufacturing finished products like monuments as per clients' requirements from USA, UK, JAPAN, CANADA.
- RCG unit is located within a Government promoted industrial complex with all the required infrastructure and transportation facilities.

2.2 Products:

Granite is a common and widely occurring type of intrusive, felsic, igneous rock. Granite has a medium to coarse texture, occasionally with some individual crystals larger than the groundmass forming a rock known as porphyry. Granites can be pink to dark gray or even black, depending on their chemistry and mineralogy. Outcrops of granite tend to form tors, and rounded massifs. Granites sometimes occur in circular depressions surrounded by a range of hills, formed by the metamorphic aureole or hornfels.

Granite is nearly always massive (lacking internal structures), hard and tough, and therefore it has gained widespread use as a construction stone. The average density of granite is 2.75 g/cm^3 and its viscosity at standard temperature and pressure is ~4.5 • 10^{19} Pa·s . The word granite comes from the Latin *granum*, a grain, in reference to the coarse-grained structure of such a crystalline rock.

- Tropical Green Paradiso
- Kerala White
- Pink and Grey Granite
- Kashmir White
- Bash Paradiso
- Tiger Skin
- Colombo Juparana Sea Green
- Hosur Gray

2.3 Raw Materials:

Heavy rough blocks taken from quarries of different sizes and different colours weighing approximately 20 to 30 ton.

Machinery:

- Circular Saw–Trolly Mounted type
- Circular Saw–Machine Mounted type
- Edge Cutting Machine
- Hand Polish Machine
- Carving Machine
- Top Polish Machine
- Drilling Machine
- Fork Lift

2.4 Safety:

- The safety committee conducts and meetings periodically and the members participation are highly motivated.
- Job Safety Analysis is to be done and action points are to be discussed and implemented thoroughly.
- Notice Board, Circular regarding safety are displayed.
- Daily Tool Box Meeting for all the crew is to be conducted by the supervisor before start of the job.
- No worker should be punished
- Regular site Inspection and Audits are to be conducted and the points are to be attended.
- Safety statistics like number of employees working, number of safe man hours worked and incident details if any are displayed in the notice board in front of the company

2.5 Welfare:

- Medical facilities are provided. Twice in a month the employees in the organization undergo medical checkup.
- Employee State Insurance is available for all the employees in the organization.
- Transport Facilities are provided to the employees for those who are coming from rural areas.

CHAPTER 3

MICRO AND MACRO ECONOMIC ANALYSIS

PROFILE OF INDIAN GRANITE INDUSTRY:

The boom period for the granite industry, which started in 2002-03, is continuing even in the current fiscal.

Granite exports from the country are expected to register a 20 per cent increase over the previous year as the Indian products have gained worldwide acceptance sidelining the Italian material.

According to Mr G. Krishna Rao, Managing Director of Pokarna Ltd, the strengthening of euro, improvement in quality and the growing demand for natural products in the US and elsewhere has paved the way for increased granite exports. Consequently, the value of granite exports from the country crossed Rs 2,000 crore last fiscal against Rs 1,400 crore in 2001-02.

The exports during this year are also expected to be 20 per cent higher than last year.

Mr Rao told *Business Line* that with the world market shifting towards the Indian products, sickness was engulfing the Italian factories. What happened to the domestic granite industry in the mid-1990s was happening to the Italian industry at present. At that time, Italy used to import raw granite blocks from India and export finished products to various countries.

Granite units mushroomed in India from 1991 to 1994. Thereafter, one after the other became sick and by 1998 over 90 per cent of the granite manufacturing units in the country have closed shop. The revival of the sick industries started from 1999 and by 2002 most of the sick units have either been revived by the same management or by the new management that acquired the factories.

Mr Rao said that many sick granite units, located in Andhra Pradesh, Karnataka and Tamil Nadu (the three States account for 80 per cent of the granite business in India), have started operations once again following one time settlement of their dues to banks and financial institutions.

Apart from the revival of the sick units, he said that eight new projects have come up in the country, most of them in Karnataka, last year. On the other hand, many of the existing granite firms have expanded their capacity. Pokarna itself had spent Rs 15 crore last year on expansion and modernisation of its manufacturing plant. The company had added two gang-saws last year and would be installing four more gang-saws shortly.

The rise in exports was accompanied by an increasing demand for granite products in the domestic market. The domestic demand increased sharply with emergence of several multiplexes and large shopping malls and the change in the life styles of people. Given the current trend, he says, India will emerge as the major market for granite products in a span of next 10 years.

In the first nine months of 2006, Italy exported raw and finished marble and granite for a total of 2 million 371,895 tons, worth 1 billion 321 million euros, which means **3.39** by quantity and **7.62** by value. The overall amount of Italian exports is even higher if we include other items with a lower added value, for instance chips, dusts, pumice stone

and slate, which bring the total to 3 million 639,966 tons, worth overall 1 billion 388 million euros.

Also according to IMMs survey, Italian imports of higher-quality raw and finished materials for the same period amount to 2 million 11 thousand tons, worth 439 million 770,614 euros, which means 7.90% by quantity and 14.80% by value.

The growth in the average value of exports is encouraging because it revives the best products of Italian origin. It is a small recovery, which must be confirmed in the medium term as well. We will be able to make more accurate comparisons when we have the end-of-the-year figures, but there are signs that suggest the worst is over.

The exports figures for the most significant items see a rise in the amounts of marble and travertine, which far better than granite, in terms of finished products and blocks and slabs in general, and a rise in the average value of exports. The exports of marble block and slabs increases by **14.9% by value** and **12.8% by quantity**, while finished products, that are over 4 times as important in value, rise by 2.8% by quantity and 10.4% by value. Granite does not have the same trend as marble, and, even if the trend is positive, granite is stable and remains the most important item by value, second only to finished marble, the exports of which amounted to 740,423 tons (2.77) worth 542 million euros (10-43%).

Our exports of raw, semi-finished and finished marble to such giants as India and China are increasing, but the absolute figures are too low if we think of the market potentials of these countries that are also big producers of raw materials and finished products.

The greatest market for Italian exports remains the United States that is importing more finished products, including granite, marble and travertine, with an overall growth, in the most significant items, of 4.5% by quantity and 8.5% by value. A noteworthy result, as it does not concern raw materials but finished products.

Overall the greatest problem area is the European Union, where the largest market, i.e. Germany, remains negative in all items, although slightly better than in the first six months of the year, both by quantity and volume. Other important countries, such as the United Kingdom, give no signs of recovery either, while the newcomers, especially Poland, the Czech Republic, Slovakia and Hungary, give out promising signs that are bound to get better in future.

India importing dynamics (which fuels the national converting industry) reflects the current market changes, as well as the new trends in the use of the materials: raw materials are supplied by Brazil (62.6% by volume and 64.6% by value),

Chapter 4

DATA ANALYSIS AND INTERPRETATION

4.1 Employee Profile:

Table: 4.1.1 Distribution of the respondents on the basis of age

Age		
Age	**No of Respondents**	**Percent**
Upto 20	10	14.5
21-30	15	22.6
31-40	13	19.6
41-50	**25**	**35.6**
Above 50 years	7	3.2
Total	70	100.0

INFERENCE:

35.6% of the employees are found in age group between 41-50. 22% of the employees belong to the age group above 21-30. 19.6% of employees from the age group between 31-40.

Table:4.1.2 Distribution of respondents on the basis of category

Category	**No of respondents**	**Percent**
Highly Skilled	20	30.7
Skilled	**30**	**45.8**
Unskilled	20	30.7
Total	70	100.0

INFERENCE:

45.8% of the employees are skilled. The unskilled and highly skilled employees are 30.7%.

Table: 4.1.3 Distribution of the respondents on the basis of Gender

Gender	No of respondents	Percent
Male	**68**	**97.2**
Female	2	2.8
Total	70	100.0

INFERENCE:

97.2% of the employees are male. The female candidates are 2.8%.

Table: 4.1.4 Distribution of the respondents on the basis of Marital Status

Marital Status	No of Respondents	Percent
Single	20	28.6
Married	**50**	**71.4**
Total	70	100.0

INFERENCE:

71.4% of the employees are married. 28.6% of the employees are unmarried.

Table: 4.1.5 Distribution of the respondents on the basis of Educational level

Education	No of Respondents	Percent
10 th	10	14.2
12 th	**20**	**28.5**
Diploma	20	28.5
Graduate	18	25.7
Others	2	2.8
Total	70	100

INFERENCE:

28.5% of the employees are completed their HSC and diploma holders.

Table:4.1.6 Distribution of the respondents on the basis of Experience

Experience	No of Respondents	Percent
Upto 5 yrs	10	14.2
6-10 yrs	17	28.5
11-15 yrs	**28**	**40**
16-20 yrs	10	14.2
Above 20 yrs	13	18.5
Total	70	100

INFERENCE:

40% of the employees are having 11-15 years of experience in their respective fields.

4.2 Safety Measures:

Table : 4.2.1 Awareness program provided by the industry

	No of respondents	Percent
Yes	**50**	**71.4**
No	20	28.6
Total	70	100.0

INFERENCE:

71.4% of the employees said that the awareness program given by the industry is effective. 28.6% of the employees said that is ineffective.

Table : 4.2.2 Awareness for safety

	No of respondents	Percent
Safety Competitions	15	21.4
Bulletin Boards	10	14.2
Pamplets	**24**	**34.2**
Booklets	18	25.7
House magazines	3	4.2
Total	70	100.0

INFERENCE:

34.2% of the employees said that the measures undertaken to bring awareness for safety is through pamplets. 25.7% of the employees said that they get through booklets.

Table: 4.2.3 Layout of the workplace

Layout	No of respondents	Percent
Yes	**38**	**54.2**
No	32	45.7
Total	70	100.0

INFERENCE:

54% of the employees said that layout of the workplace properly designed to avoid accidents

Table: 4.2.4 Risk *factor*

Risk	No of respondents	Percent
Yes	25	35.7
No	**45**	**64.5**
Total	70	100.0

INFERENCE:

64.5% of the employees said that they perceived risk factor while working in the company. 35.7% of the employees said that they didn't perceive any risk factor while they are working.

Table : 4.2.5 Security

Secure	No of respondents	Percent
Yes	**48**	**68.5**
No	22	31.4
Total	70	100.0

INFERENCE:

68.5% of the employees feel more secure on the safety measures provided by the company. 31.4% of the employees are not feeling secure on the safety measures provided by the company.

Table : 4.2.6 Safety measures introduction

Safety	No of respondents	Percent
Yes	25	35.7
No	**45**	**64.2**
Total	70	100.0

INFERENCE:

64.2% of the employees are not require any safety measures to be introduced in the company. 35.7% of the employees require safety measures to be introduced in the company

Table : 4.2.7 Provision of Safety Helmets

helmets	No of respondents	Percent
Adequate	20	28
Inadequate	**31**	**44.2**
Noopinion	19	35.8
Total	70	100

INFERENCE:

44.2% of the employees are feeling that the safety Helmets provided by the industry are inadequate.

Table : 4.2.8 Provision of Safety Outfits

Outfits	No of respondents	Percent
Adequate	17	28
Inadequate	23	30
Noopinion	**30**	**45.8**
Total	70	100

INFERENCE:

45.8% of the employees said No opinion about the provision of safety outfits.

Table : 4.2.9 Provision of Safety Goggles

goggles	No of respondents	Percent
Adequate	17	24.5
Inadequate	**27**	**38.5**
Noopinion	16	22.8
Total	70	100

INFERENCE:

38.5% of the employees are feeling that the safety goggles provided by the industry are inadequate.

Table : 4.2.10 Provision of Leather Gloves

Gloves	No of respondents	Percent
Adequate	20	28
Inadequate	**31**	**44.2**
Noopinion	19	35.8
Total	70	100

INFERENCE:

44.2% of the employees are feeling that the leather gloves provided by the industry are inadequate.

Table : 4.2.11 Provision of Safety Shoes

Shoes	No of respondents	Percent
Adequate	**50**	**71.4**
Inadequate	17	24.2
Noopinion	3	4.2
Total	70	100

INFERENCE:

71.4% of the employees are feeling that the safety shoes provided by the industry are adequate.

Table : 4.2.12 Provision of Safety Boots

Boots	No of respondents	Percent
Adequate	**47**	**67.1**
Inadequate	13	18.5
Noopinion	10	14.2
Total	70	100

INFERENCE:

67.1% of the employees are feeling that the safety boots provided by the industry are adequate.

Table : 4.2.13 Provision of Safety Mask

Mask	No of respondents	Percent
Adequate	**55**	**78.5**
Inadequate	15	21.5
Noopinion	0	0
Total	70	100

INFERENCE:

78.5% of the employees are feeling that the safety mask provided by the industry are adequate.

Table : 4.2.14 Provision of Safety Belt

Belts	No of respondents	Percent
Adequate	**40**	**57.1**
Inadequate	23	32.8
Noopinion	7	10
Total	70	100

INFERENCE:

57.1% of the employees are feeling that the safety belt provided by the industry are inadequate.

4.3 Welfare Measures:

Table : 4.3.1 Medical facilities

Medical	No of respondents	Percent
Highly Satisfied	**56**	**80**
Satisfied	12	17.4
Neutral	2	2.6
Dissatisfied	0	0
Highly Dissatisfied	0	0
Total	70	100

INFERENCE:

56% of the employees are highly satisfied with the medical facilities provided by the company.

Table : 4.3.2 Canteen facilities

Canteen	No of respondents	Percent
Highly Satisfied	17	24.2
Satisfied	**45**	**64.2**
Neutral	8	2.6
Dissatisfied	0	0
Highly Dissatisfied	0	0
Total	70	100

\

INFERENCE:

64.2% of the employees are satisfied with the Canteen facilities provided by the company.

Table : 4.3.3 Rest Room facilities

Rest Room	No of respondents	Percent
Highly Satisfied	20	28.5
Satisfied	18	25.7
Neutral	**22**	**31.4**
Dissatisfied	0	0
Highly Dissatisfied	0	0
Total	70	100

INFERENCE:

31.4% of the employees neutral with the rest room facilities provided by the company.

Table : 4.3.4 Recreational facilities

Recreational	No of respondents	Percent
Highly Satisfied	7	10
Satisfied	13	18.5
Neutral	**28**	**40**
Dissatisfied	12	17
Highly Dissatisfied	10	14.2
Total	70	100

INFERENCE:

40% of the employees feel neutral with the Recreational facilities provided by the company.

Table : 4.3.5 Family Planning Programmes

FPP	No of respondents	Percent
Highly Satisfied	0	0
Satisfied	8	11.4
Neutral	12	17.1
Dissatisfied	**40**	**57.1**
Highly Dissatisfied	10	14.2
Total	70	100

INFERENCE:

57.1% of the employees are dissatisfied with the Family Planning Programmes provided by the company.

Table : 4.3.6 Educational facilities

Education	No of respondents	Percent
Highly Satisfied	12	17.1
Satisfied	14	20
Neutral	**30**	**42.8**
Dissatisfied	4	5.7
Highly Dissatisfied	10	14.2
Total	70	100

\

INFERENCE:

42.8% of the employees feel neutral with the Educational Facilities provided by the company.

Table : 4.3.7 Transport Facilities

Transport	No of respondents	Percent
Highly Satisfied	10	14.2
Satisfied	**38**	**54.2**
Neutral	12	17.1
Dissatisfied	5	7.1
Highly Dissatisfied	5	7.14
Total	70	100

INFERENCE:

54.2% of the employees are satisfied with the Transport Facilities provided by the company.

Table : 4.3.8 Co-operative Establishments

CE	No of respondents	Percent
Highly Satisfied	12	17.1
Satisfied	14	20
Neutral	4	5.7
Dissatisfied	10	14.2
Highly Dissatisfied	**30**	**42.8**
Total	70	100

\

INFERENCE:

42.8% of the employees are dissatisfied with the Co-operative Establishments provided by the company.

Table : 4.3.10 Housing Facilities

HF	No of respondents	Percent
Highly Satisfied	19	27.1
Satisfied	10	14.2
Neutral	8	11.4
Dissatisfied	**20**	**28.5**
Highly Dissatisfied	13	18.5
Total	70	100

INFERENCE:

28.5% of the employees are dissatisfied with the Housing Facilities provided by the company.

Table : 4.3.11 First Aid facilities

FAF	No of respondents	Percent
Highly Satisfied	**45**	**64.2**
Satisfied	15	21.4
Neutral	0	0
Dissatisfied	0	0
Highly Dissatisfied	0	0
Total	70	100

INFERENCE:

64.2% of the employees are highly satisfied with the First Aid Facilities provided by the company.

Table : 4.3.12 Ex-gratia payments

Transport	No of respondents	Percent
Highly Satisfied	10	14.2
Satisfied	12	17.1
Neutral	**38**	**54.2**
Dissatisfied	5	7.1
Highly Dissatisfied	5	7.14
Total	70	100

INFERENCE:

54.2% of the employees feel neutral with the Transport Facilities provided by the company.

Table : 4.3.13 Compassionate Appointment

CA	No of respondents	Percent
Highly Satisfied	12	17.1
Satisfied	14	20
Neutral	**30**	**42.2**
Dissatisfied	10	14.2
Highly Dissatisfied	4	5.7
Total	70	100

INFERENCE:

42.2% of the employees are neutral with the Compassionate Appointment provided by the company.

CHAPTER 5

FINDINGS AND SUGGESTIONS

5.1 FINDINGS

5.1.1 PROFILE OF THE RESPONDENTS:

- Most of the respondents belong to the age group of 41-50 years.
- Most of the respondents are skilled.
- Majority of the respondents are married.
- 28.5% of the employees are diploma holders.
- 40% of the respondents are experienced.
- 71.4% of the employees said that the awareness program given by the industry is effective.

5.1.2LEVEL OF SATISFACTION OF EMPLOYEES ON SAFETY MEASURES:

FACTORS	COMMENTS	PERCENT
Awareness for safety	Pamplets	34.2
Layout	Properly designed	54
Risk factor	Perceived	64.5
Safety measures	more secure	68.5
Safety measures	Introduction	64.2
Safety Helmet	Inadequate	44.2
Safety outfits	No opinion	45.8
Safety Googles	Inadequate	38.5

Leather Gloves	Inadequate	44.2
Safety Shoes	Adequate	71.4
Safety boots	Adequate	67.1
Safety Mask	Adequate	78.5
Safety Belt	Inadequate	57.1

5.1.2LEVEL OF SATISFACTION OF EMPLOYEES ON WELFARE MEASURES

FACTORS	COMMENTS	PERCENT
Medical Facilities	Satisfied	56
Canteen Facilities	Satisfied	64.2
Rest Room Facilities	Neutral	31.4
Recreational Facilities	Neutral	40
Family Planning Programmes	Dissatisfied	57.1
Educational Facilities	Neutral	42.8
Transport Facilities	Satisfied	54.2
Co-operative Establishments	Dissatisfied	42.8
Housing Faclilities	Dissatisfied	28.5
First Aid Facilities	Highly Satisfied	64.2
Compassionate Appointment	Neutral	42.2

5.2 SUGGESTION

- When I approached employees for the purpose of this survey, I found lot of openness among them. At that time they shared and confident with me their own concerns and anxieties.
- They also showed their interest and earnestness for the betterment of the company output.
- Management has to take more corrective actions on developing participation among the employees.
- Out of 70 employees 40 satisfied with the safety and welfare measures provided by the company. So the company should take care of the remaining dissatisfied employees opinions that will help the organistion development.
- Out of 70 employees 50 are dissatisfied with the suggestion scheme . Management should take care of the action plan.
- Out of 70 employees only 22 are satisfied with the rest room facilities ,so the management should take of the remaining dissatisfied employees and make arrangements to provide good rest room facilities for the workers. This will ultimately improve the employee satisfaction and high productivity.

CHAPTER 6

CONCLUSION

This project "**A STUDY ON SAFETY AND WELFARE MEASURES**" was done in Renu & Co Granites, Salem to examine level of satisfaction on safety and welfare measures provided by the company. This study helps to determine the safety and welfare measures provided in the granite industry and also helps to improve the working conditions of an organization. The study helps the employees to share their views and the management also can make use of this to increase the profit of the organization through high productivity and level of satisfaction of employees.

APPENDIX

QUESTIONNAIRE

I Personal Details

Name (optional) :

Age : ☐ upto 20 ☐ 21 – 30 ☐ 31 – 40
☐ 41 – 50 ☐ above 50

Category : ☐ Highly Skilled ☐ Skilled ☐ Unskilled

Gender : ☐ Male ☐ Female

Marital Status : ☐ Single ☐ Married

Educational Level : ☐ 10^{th} ☐ 12^{th} ☐ Diploma
☐ Graduate ☐ Others

Experience : ☐ upto 5 yrs. ☐ 6 - 10 yrs. ☐ 11 - 15 yrs.
☐ 16 - 20yrs. ☐ above 20 yrs.

II Safety Measures:

1. Are adequate safety training programmes conducted for the employees ?

   ☐ Yes ☐ No

2. Have you attended any safety training programme conducted by the company?

   ☐ Yes ☐ No

   If yes, how was the safety training programme :

   ☐ Highly Effective ☐ Effective ☐ No Opinion
   ☐ Ineffective ☐ Highly Ineffective

3. Does the Management provide awareness programmes relating to safety?

   ☐ Yes ☐ No

If yes, what are the measures undertaken to bring about awareness for safety needs?

Safety Competitions	☐
Talks on safety	☐
Bulletin Boards / Slogans	☐
Pamphlets	☐
Booklets	☐
House Magazines	☐

4. Are the machines, equipments and tools :

	Yes	No
Well Designed	☐	☐
Well Maintained	☐	☐
Well Guarded	☐	☐

5. Is the layout of the workplace properly designed to avoid accidents?

☐Yes ☐No

6. Do the safety measures help in reducing the severity of accidents?

☐Yes ☐ No

7. Do you perceive any risk factor while working at the company?

☐Yes ☐No

8. Do the safety measures make you feel more secure ?

☐Yes ☐ No

9. Do you feel more safety measures are to be introduced?

☐Yes ☐No

10. What is your opinion about the following :

Provision of safety measures	Adequate	Inadequate	No Opinion
Safety helmets	☐	☐	☐
Safety outfits	☐	☐	☐
Safety goggles	☐	☐	☐
Leather gloves	☐	☐	☐
Safety shoes	☐	☐	☐
Safety boots	☐	☐	☐
Safety mask	☐	☐	☐
Safety belt	☐	☐	☐

11. Do you make use of the above safety measures provided to you?

☐ Always ☐Sometimes ☐Never ☐ No Opinion

12. Are immediate actions taken to investigate accidents?

☐ Always ☐Sometimes ☐Never ☐ No Opinion

13. Do you tend to avoid work because of the risk involved in it?

☐ Always ☐ Sometimes ☐Never ☐ No Opinion

14. In case of accidents/mishaps you feel you would be taken good care of by the management?

☐ Strongly Agree ☐ Agree ☐ No opinion
☐ Disagree ☐ Strongly Disagree

	SA	A	N	D	SD
Create better industrial relations	☐	☐	☐	☐	☐
Build greater loyalty to the company	☐	☐	☐	☐	☐
Helps foster team spirit	☐	☐	☐	☐	☐

Welfare Measures

15. Have you ever been disappointed by any of the welfare measures?

☐Yes ☐No

16 .Are you happy with the welfare measures provided at the work place?

☐Yes ☐No

17. Do the welfare measures satisfy your needs?

☐ Always ☐ Sometimes ☐Never ☐No Opinion

18. Do the welfare measures help in solving the problems faced by employees?

☐ Always ☐ Sometimes ☐ Never ☐ No Opinion

19.What is your opinion about the following welfare measures at the company?

Highly **S**atisfactory - **HS** **S**atisfactory- **S** **N**eutral - **N**
Dissatisfactory- **D** Highly **D**issatisfactory - **HD**

	HS	**S**	**N**	**D**	**HD**
Medical facilities	☐	☐	☐	☐	☐
Canteen facilities	☐	☐	☐	☐	☐
Rest room facilities	☐	☐	☐	☐	☐
Recreational facilities	☐	☐	☐	☐	☐
Family Planning Programmes	☐	☐	☐	☐	☐
Educational facilities	☐	☐	☐	☐	☐
Transport facilities	☐	☐	☐	☐	☐
Co-operative Establishments	☐	☐	☐	☐	☐
Housing facilities	☐	☐	☐	☐	☐
Shopping facilities	☐	☐	☐	☐	☐
First Aid facilities	☐	☐	☐	☐	☐
Ex-gratia payments	☐	☐	☐	☐	☐
Compassionate Appointment	☐	☐	☐	☐	☐
Level of satisfaction	☐	☐	☐	☐	☐

REFERENCES

1.A. Adebiyi, O.E Charles-Owaba, M.A. Waheed; Safety performance evaluation models Disaster Prevention and Management Vol.16, No.2, 0965-3562(2003).

2.Albanese,Andrew Richard. "Take this job and love it" Library journal: 21.01.2008, Volume.133 Issue 2 ,Page(36-39).

3. N.D. Kapoor (2004), "Elements of Merchantile Law" , Sultan Chand & Sons, New Delhi.

4.Kothari C.R. (1999)," Research Methodology", Wishwa Prakasham, New Delhi.

5.L.M Prasad, (2001), "Human Resource Management", Sultan Chand & sons, New Delhi.

6.Robert J. Vandenberg ; Charles E. Lance, Examining the Casual order of Job Satisfaction and Organisational Commitment , Journal of Management , Vol.18, No.1, 153-167(1992).

7. Steven L. Mcshane, (2000), "Organisational Behavoiur", Tata McGraw Hill, New Delhi.

8. Welch, Jim. "The Real Reasons Employees Leave and how to keep the best" Business Journal 22.02.2008, Volume.22 Issue 8, Page(11-14)

WEBSITES :

www.google.com

www.wikiepedia.com